

A Confidential Guide to the Contents

Ernest Born, one of whose drawings in sanguine is reproduced as the frontispiece in this issue, received this year's award of the Birch Burdette Long Prize for architectural rendering.



Church buildings designed for the use of Christian Scientists have certain definite requirements that differ materially from churches of all other denominations. Mr. Pope Barney, of Philadelphia, a Gold Medallist of the Architectural League, has designed a number of these churches, and is particularly well qualified to discuss the intricacies of their planning. p. 194



The Architectural League of New York has two kinds of shows: one, given every other year in the Grand Central Palace, is called an exposition, combining with the architectural exhibits those of manufacturers and material men; the alternate years bring a smaller show, in the Fine Arts Building, a more intimate type of exhibition, combining the work of the architects, sculptors, painters, and some of the minor arts. Here is the first instalment of a pictorial review of this year's show—one of the latter type. p. 203



We have laboratories and research organizations for many phases of our complex modern life, seeking out and making widely available the scientific facts that help us to master more readily our environment. Yet creative design is permitted, like Topsy, to "just grow." Rutherford Boyd, a painter, has started a little research laboratory of his own in design—design based on natural laws as expressed in geometry, instead of on man's individual whimsies. p. 209



New York has had the pleasure and profit of seeing two "one-man shows" this past winter under the ægis of The



Architectural League, and the two have established a new tradition in exhibition technic. The first was that of Holabird & Root, architects; the second, that of Lee Lawrie, sculptor. In each case the work has pointed the way to a higher plane of creative effort, marked by a sloughing-off of out-worn forms of expression, by a firmer grasp of essentials, and by an unquestioned attainment of beauty in a new aspect. Here are some of what seem to us the high lights in an exhibition of such uniformly high excellence as to make any selection from it a matter of almost random choice. Royal Cortissoz calls the show "one of the best demonstrations ever made by an American artist." p. 217



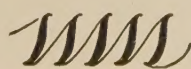
A conviction is rapidly gaining wide acceptance among those for whom art has heretofore been merely a luxury of the dilettante—that beauty in building, even for the strictly utilitarian structure, is actually a business asset. An example of this acceptance is a printing establishment in Houston, Texas. p. 225



A hasty glimpse of what is going on architecturally throughout the country—projects tentatively shown in their early perspective studies; and others recently completed in brick and stone, steel, and cement. p. 228



A very tiny house on the outskirts of Philadelphia, designed by an architect who was numbered among the winners of a recent nationwide small-house competition. p. 231



The competition for a memorial to George Rogers Clark, commemorating the winning of the Old Northwest, to be erected by the government at Vincennes, Ind., aroused a particularly keen interest in the profession, not only among the many competitors but among all who knew of it. Invited competitors were: Dwight James Baum; Paul Cret; Zantzinger, Borie & Medary; Delano & Aldrich; LaBeaume & Klein; H. Van B. Magonigle; and John Russell Pope. It is possible to find space in this issue only for the winner's drawings. p. 233



The travels of F. R. Yerbury, our European correspondent, have taken him this month among the Paris shops, into a Frankfort church, and through a London apartment in the contemporary manner—armed with a camera which has, in addition to its good lenses, a keenly discriminating architectural eye. p. 237



Architectural gossip, news, criticism, and comment—all from a frankly personal view-point. p. 243



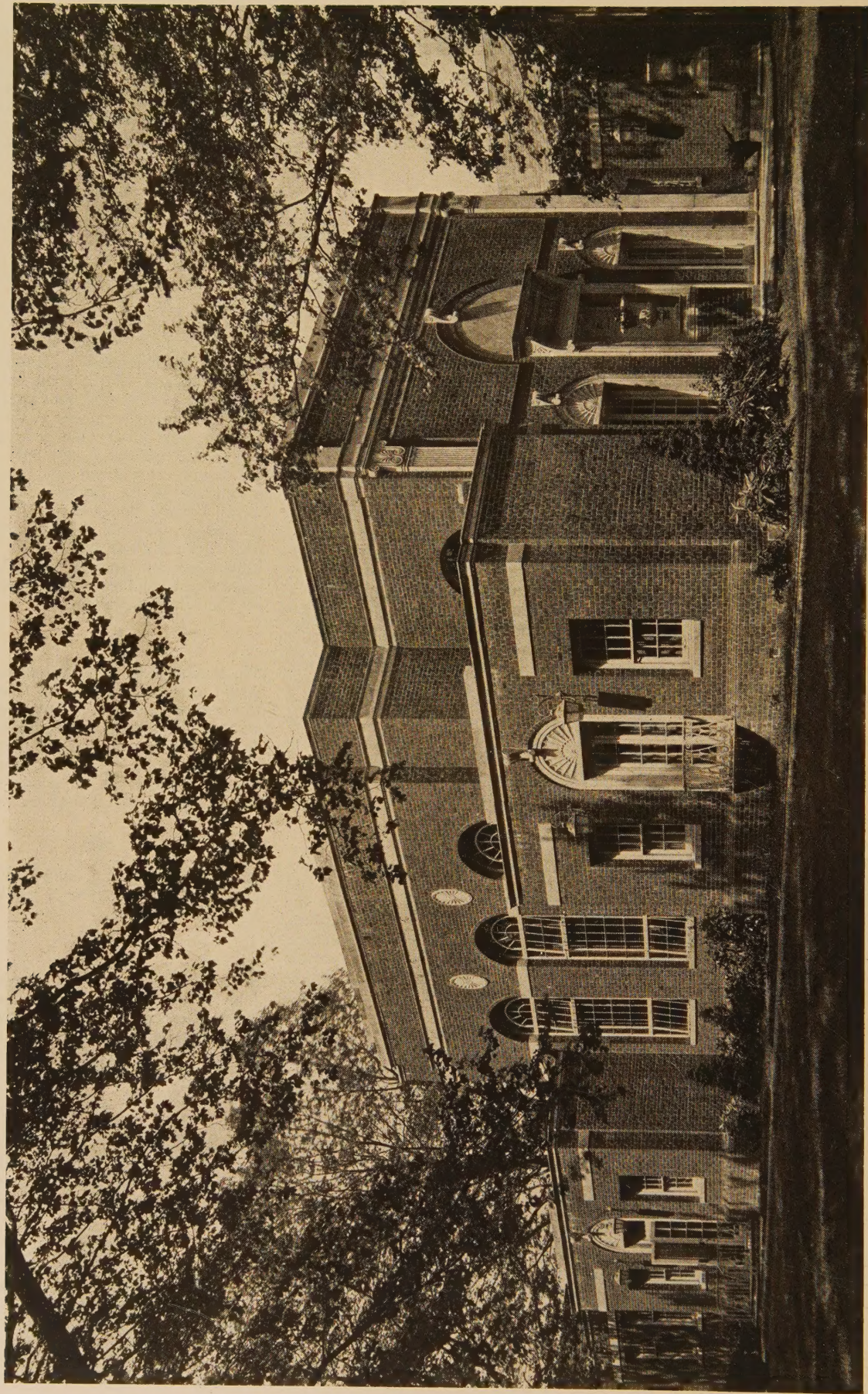
A timely subject for this month's portfolio of photographs. More and more in America is the country house being supplemented by an outdoor living-room of some kind. Here are many interpretations of what it should be. p. 247



The late Mr. Taylor's penchant for investigating the work of men's hands is carried by the Mellon Institute for Industrial Research into the age-old trade of bricklaying. p. 255



The account of an effort to tell the public something about the architect and his profession—facts which, through his innate modesty, his disinclination, or his ethical inhibitions, the architect leaves untold. p. 256

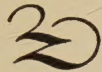


FIRST CHURCH OF CHRIST SCIENTIST, ARDMORE, PA.
DAVIS, DUNLAP & BARNEY, ARCHITECTS

The Planning of Christian Science Churches

An Interview with William Pope Barney, Architect

WITHIN the past few years there has been a crystallization of the rather specialized requirements to be met in the planning of Christian Science churches. It is, therefore, possible to set them forth almost with the exactitude of a formula. While there is room for considerable flexibility of individual interpretation, the provisions to be met are as definitely set as are those for the planning of the churches of any other religious body.



The fundamentals to be provided include, first of all, *perfect acoustics* in the church auditorium, both for the readers and for those speaking from the floor of the auditorium. Since it often happens that one of the readers is a woman, and as her term of office cannot be more than three years, her selection may be more on the grounds of availability than strength of voice.

Second, the readers' desk must be *perfectly visible* from every seat in the auditorium, and every seat should be visible from every other seat. The latter desideratum is impossible of fulfillment when there are balconies or galleries; the desirability, nevertheless, exists. There must be *sound insulation* between the Sunday-school and the church auditorium, and a separate entrance for the children, as both services are frequently held at the same hour. Furthermore, there must be *ample light* from the windows so that there is no need of artificial light during the daytime. Another fundamen-

The illustrations accompanying this article are from work of Davis, Dunlap & Barney, Architects, designed by Mr. Barney, formerly of the firm mentioned

tal requirement is ample and free circulation of air, as services are held on Wednesday evenings and the building may have been closed up to within half an hour before opening, the problem of janitor

service being quite pertinent in a building that is not used all through the week for other activities.

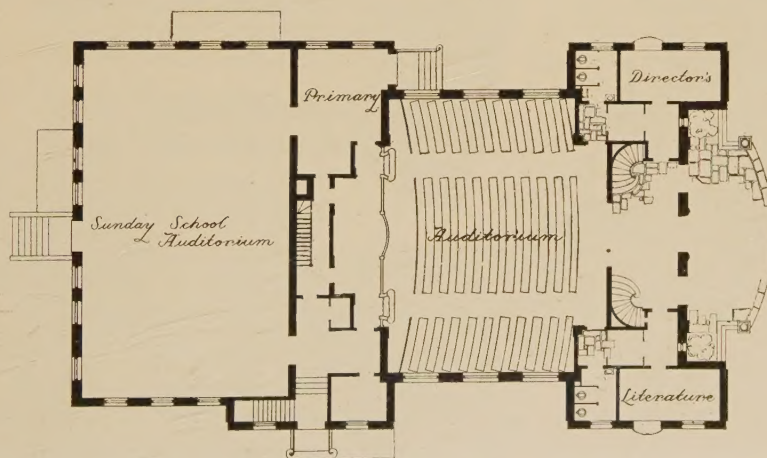
It is highly desirable that the interior decoration be quiet in character in order that attention may not be distracted from the reader. The only constant elements that admit of decorative handling are two inscriptions, one from Scripture and the other from the Christian Science text-book, which are invariably placed where they can be seen and read by every one in the congregation. The exterior treatment is more a case of fitting in gracefully with the permanent surroundings than observance of any preconceived architectural style symbolical of the building's purpose.



The different elements that must be incorporated in the structure are the *church auditorium*; the *Sunday-school*; the *clerk's office*; the *Sunday-school superintendent's office*; a *literature distribution room*; a *directors' room*; *committee rooms*; *reading-room*; *readers' and musicians' rooms*; and a *librarian's room*.

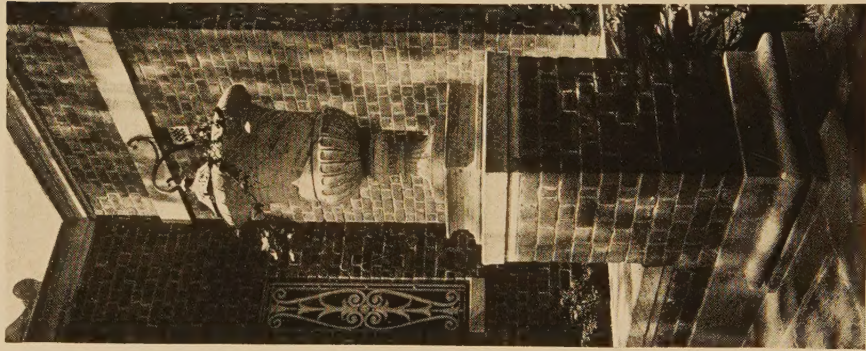
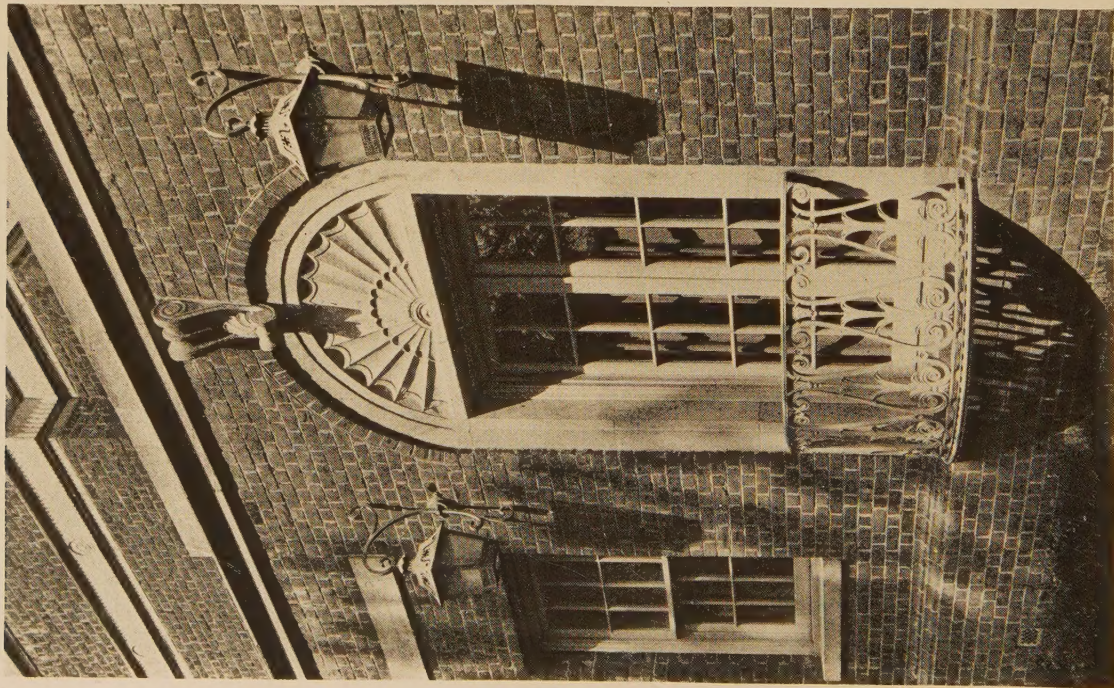
In the church auditorium the seating should not be closer than thirty-three inches, back to

back, and the use of pews so spaced is ideal for comfort, utility and character; the other requirements of the programme are such

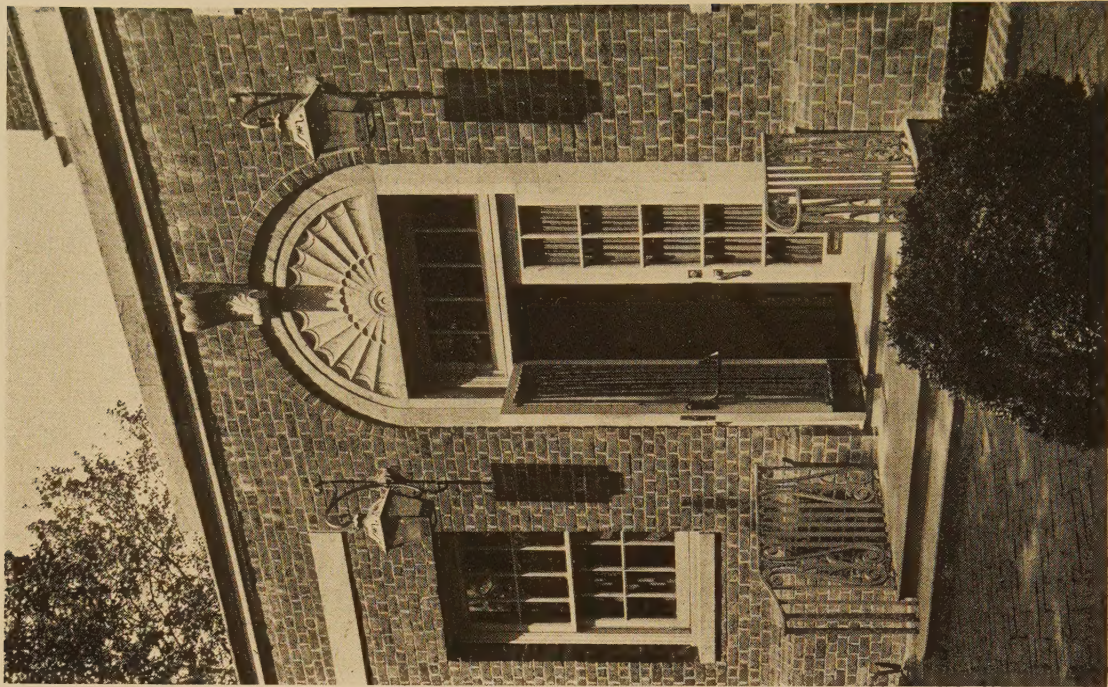


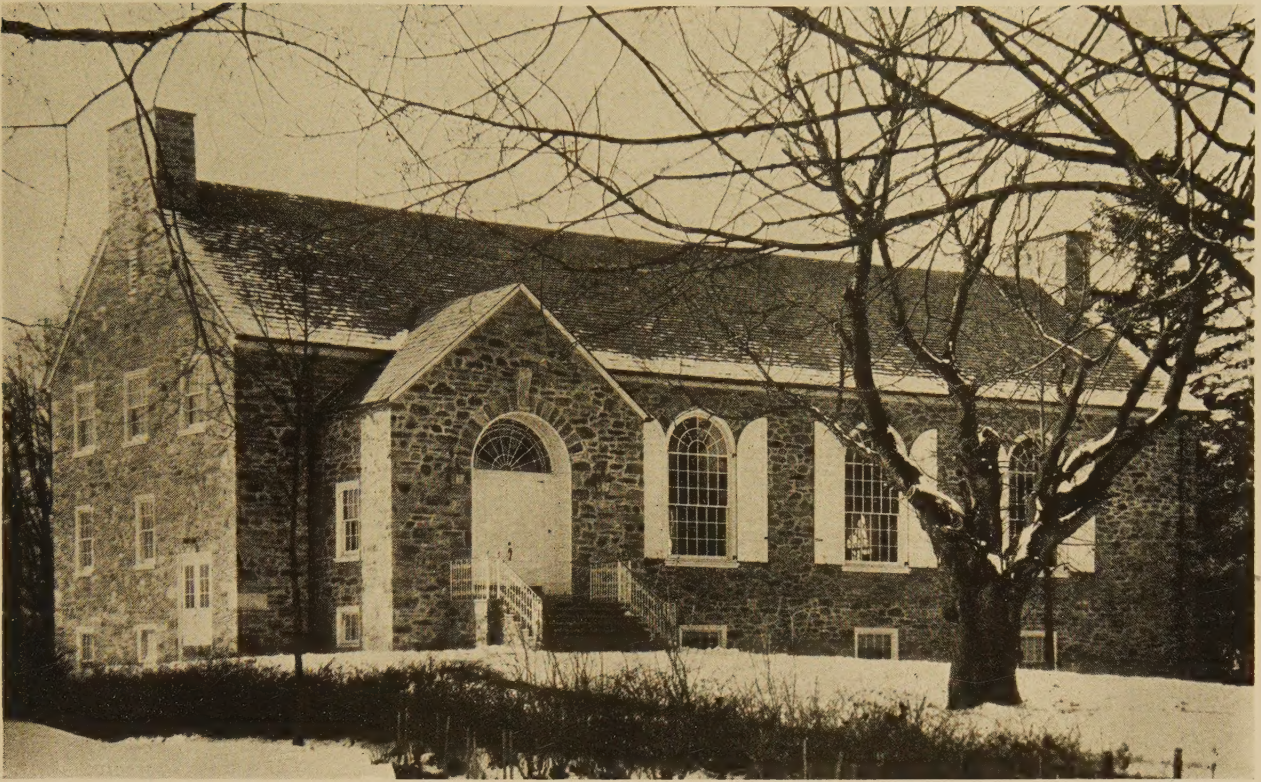
First-floor plan of the First Church of Christ Scientist, Ardmore, Pa. Davis, Dunlap & Barney, Architects

The foyer can scarcely be made too ample; 150 square feet per hundred persons, the theatre ratio, is not enough



EXTERIOR DETAILS
OF THE
FIRST CHURCH OF CHRIST
SCIENTIST,
ARDMORE, PA.
DAVIS, DUNLAP & BARNEY,
ARCHITECTS





*First Church of Christ Scientist, Swarthmore, Pa.
Davis, Dunlap & Barney, Architects*

that if a theatre type of seat is used the auditorium takes on so secular a nature as to be positively offensive to many of those accustomed to the traditional forms of church seating. The floor should not be sloping, unless there are more than 500 seats, as this again strikes the theatrical note and is quite unnecessary if the height of the platform is properly proportioned to the depth of the auditorium. The spacing of seats in the balcony or gallery should be six inches farther apart, on account of the sloping floor, to allow of comfort in kneeling.

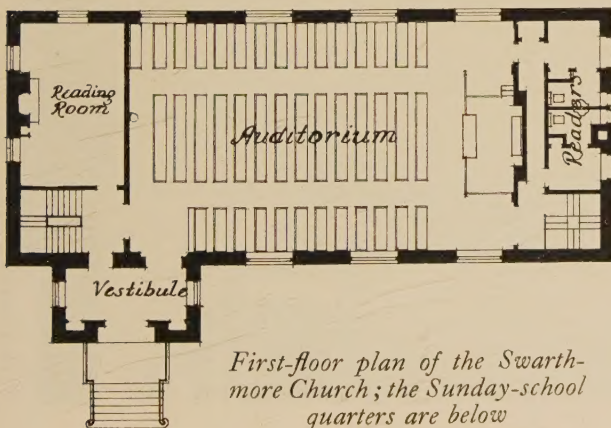
The reading platform should not be less than eight feet in depth, and its width should

be sufficient to give five or six feet of clear space at the end of the reading desk, on at least one side, if the building is also to be used for Christian Science lectures, as the lecturers object to standing behind the reading desk. On the platform there are two seats for the readers and one, to one side, for the soloist.

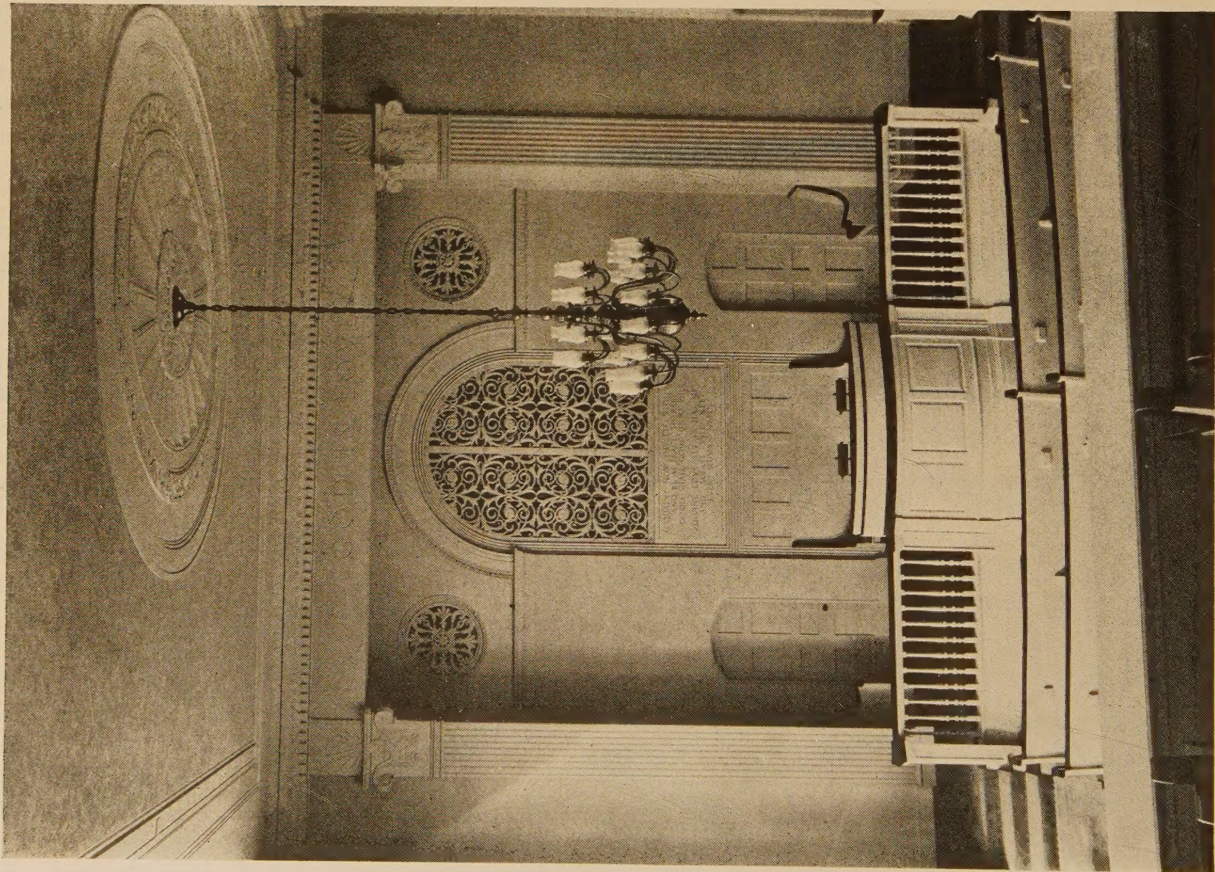
The placing of the organ is optional, but the placing of the console must be carefully considered; it must not be unsightly, and it must be where the organist can hear perfectly so as to balance the accompaniment against the soloist's voice. The console may well be placed in the gallery, provided there be a system of flash-lights and buzzers to keep the organist and others in touch at all times, both before and after services begin.

The foyer or vestibule can never be made too ample; the conventional proportion in theatres (150 square feet for every 100 persons) is insufficient for the purpose, as there is a certain amount of contact necessary between the members after the services, arranging of committee work and the like.

The Sunday-school consists of a primary department room, and a large room for all the other classes; the whole school must convene for the opening and closing services. It is not

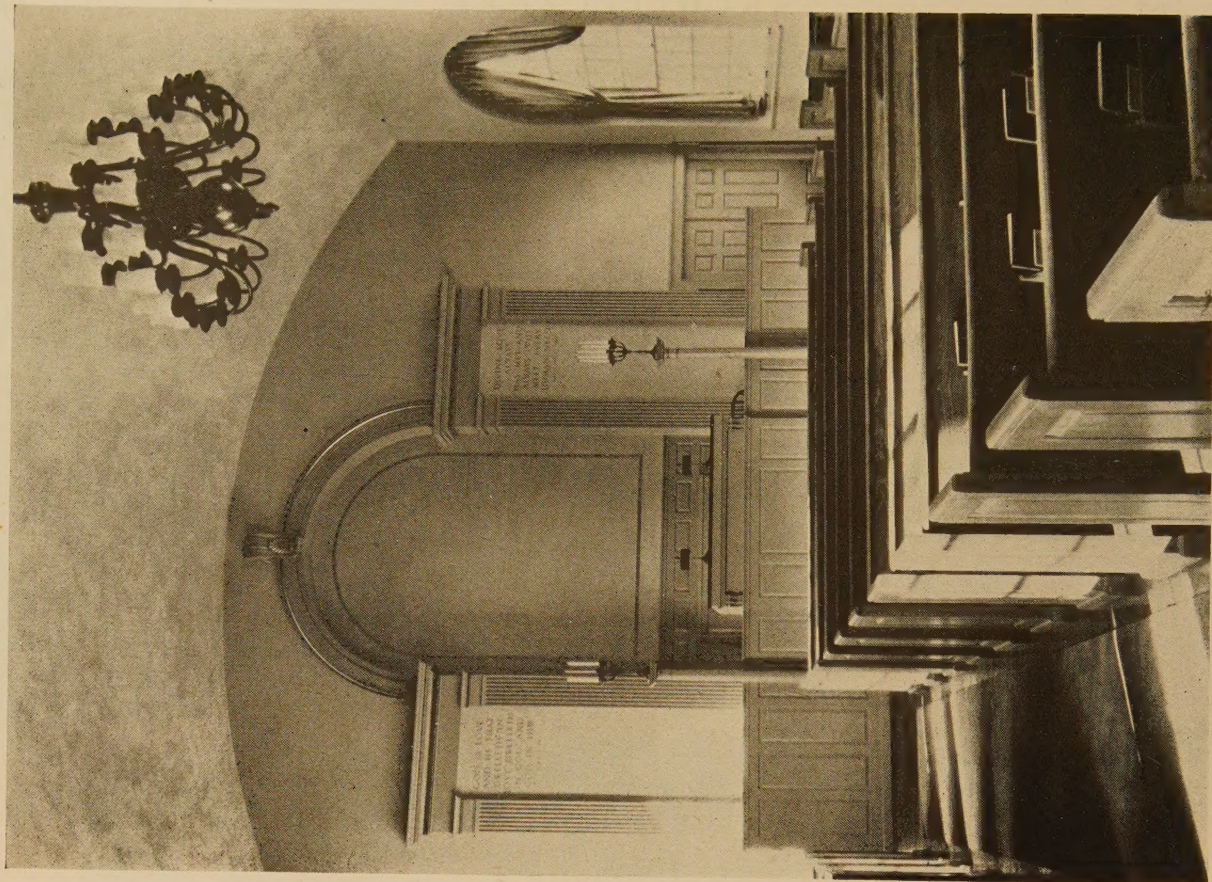


First-floor plan of the Swarthmore Church; the Sunday-school quarters are below



INTERIOR, FIRST CHURCH OF CHRIST SCIENTIST, ARDMORE, PA.

DAVIS, DUNLAP & BARNEY, ARCHITECTS



INTERIOR, FIRST CHURCH OF CHRIST SCIENTIST, SWARTHMORE, PA.



FIRST CHURCH OF CHRIST SCIENTIST, ATLANTIC CITY, N. J.
DAVIS, DUNLAP & BARNEY, ARCHITECTS

The plans are shown on page 200

customary to have individual classrooms and the cumulative reverberation of a room with 200 children in it presents a problem; every care, therefore, must be taken to ensure sound-deadening and sound-absorption. The classes consist of from four to ten pupils whose chairs are grouped round the teacher; the teacher has a small desk for hymnals and books; and the chairs are all movable so that the children may face the platform for the opening and closing services.

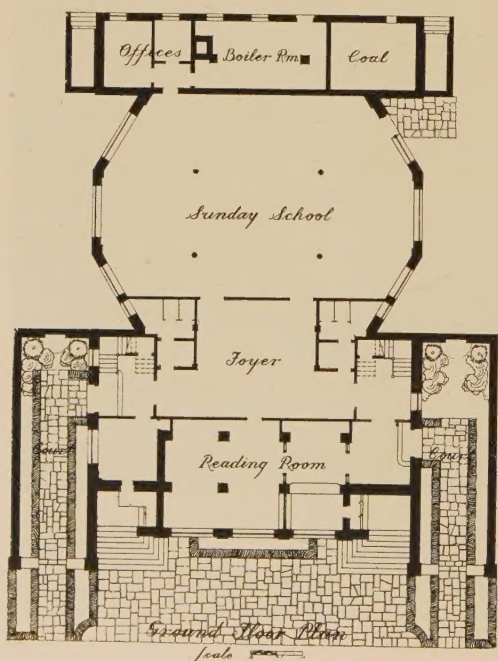
It is desirable to have a close connection between the auditorium and at least the primary department of the Sunday-school, but sound-insulation must be borne in mind. Coat rooms for boys and girls and a small superintendent's office, which can serve also as a clerk's office, complete this element. It is frequently deemed desirable to have a microphone outlet on the reading desk in the auditorium, with loud-speaker horns in the Sunday-school and a control set in the superintendent's office, so that the lectures may be heard in both rooms, thus doubling the possible attendance.

In the literature distribution room, the essentials for work are a large table and built-in cases with at least fifteen compartments for newspaper sorting, together with considerable shelf space for the storage of other literature. A study of the way in which the distributing work is done in each church is absolutely essential in order that a satisfactory solution be found. As the work is done by volunteers, every consideration should be paid to making con-

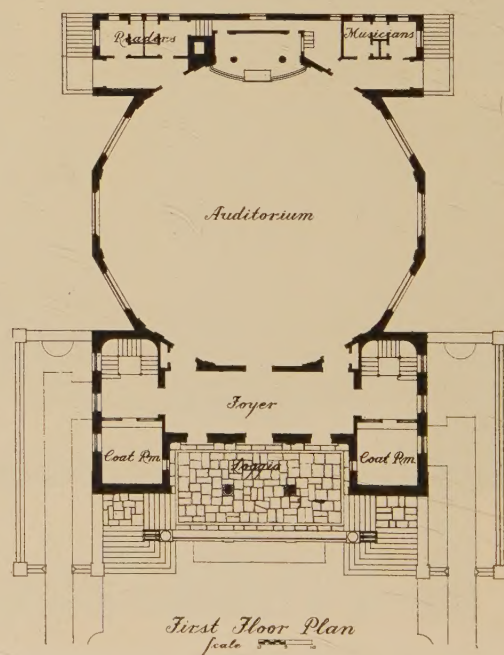
venient the particular system they have elected to follow. In smaller churches the literature distribution room may be combined with the directors' room, which necessarily contains a large table.

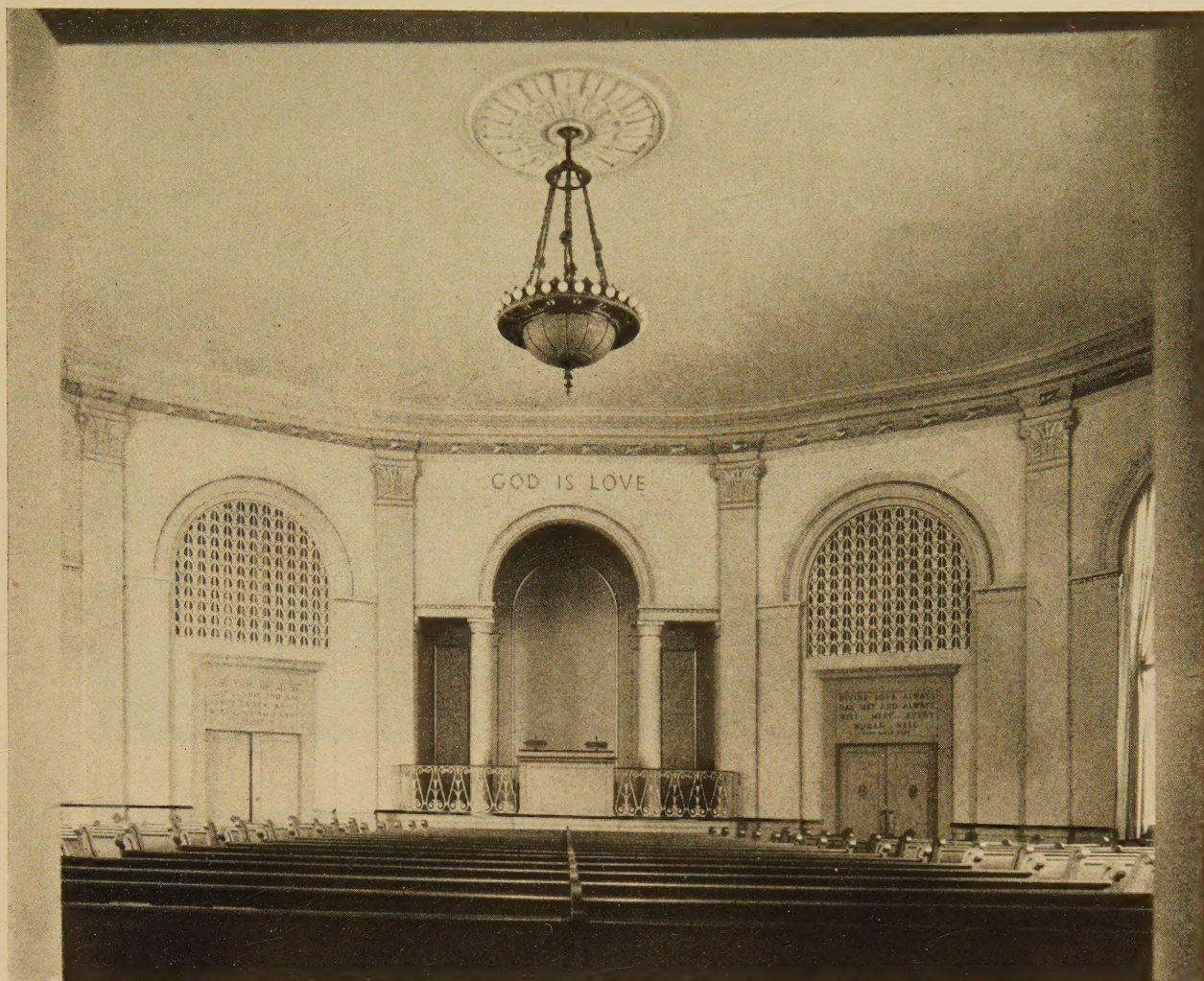
In the larger churches, one or two complete committee rooms are required, as well as rooms for the ushers and, sometimes, even for the treasurer. In small churches, however, a large literature distribution room or the directors' room may answer all purposes of this sort.

The reading-room is often in the church edifice, in which case it ought to be so placed that its position is readily discernible and accessible from outside without inquiry. It should not be of less size than an ordinary living-room but, regardless of size, it should be so planned that there may be perfect supervision from the librarian's desk; this may be in the same room, but is better placed in a sort of vestibule with glass doors and partition between it and the reading-room proper, thus permitting conversation and the transaction of business without disturbing occupants of the reading-room, who expect absolute silence to be maintained. There should be a number of places for individual study, removed from the entrance, so that those coming in for only a short time may not annoy readers remaining for a longer period of quiet, uninterrupted study. The lighting of the reading-room should be general and also on the individual tables. There should likewise be standing lamps beside the chairs. The general illumination ought not to be unduly brilliant, and



Ground and first-floor plans of First Church of Christ Scientist, Atlantic City, N. J. Davis, Dunlap & Barney, Architects





Above, interior of the First Church of Christ Scientist, Atlantic City, N. J.

the character of the room should be that of a quiet, domestic interior.

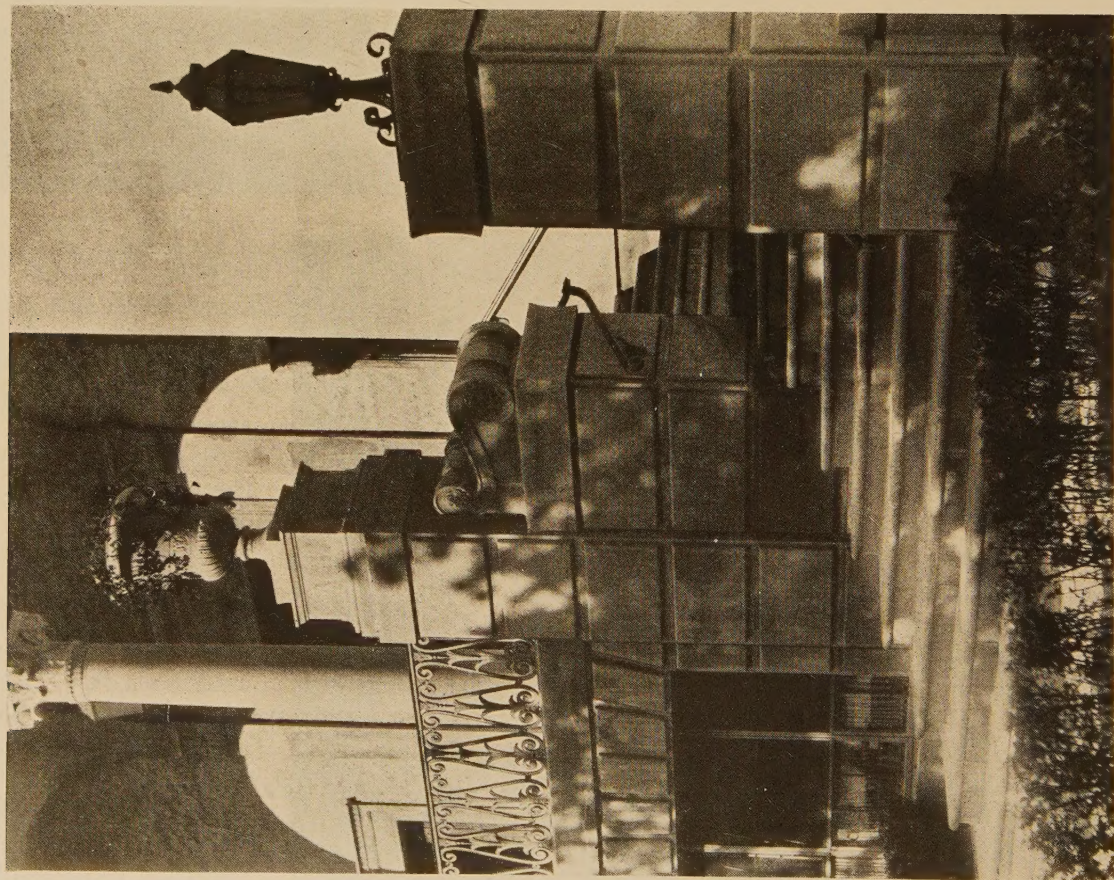
The readers' and musicians' rooms need not be larger than five feet by eight feet, but adjacent to each should be a completely equipped lavatory. They should have separate entrances and be accessible from the platform. Between the readers' and ushers' rooms, and between the readers', musicians', and soloists'



At left, a detail of the auditorium in the Atlantic City Church, showing rear gallery

rooms, there ought to be provision for electric signals.

By some scheme making possible the saving of fuel during the week, when the large elements of the building are not in use, the general heating system of the church and Sunday-school ought to be kept separate from the special heating system for the reading-room, the directors' room, the literature distribution room, and the committee rooms.



EXTERIOR DETAILS, FIRST CHURCH OF CHRIST SCIENTIST, ATLANTIC CITY, N. J.
DAVIS, DUNLAP & BARNEY, ARCHITECTS



*House of Geraldyn L. Redmond, Brookville, Long Island.
James W. O'Connor, Architect*

A Pictorial Review of the **Architectural League Exhibition**

FEBRUARY 1 TO MARCH 2, 1930, IN THE FINE ARTS BUILDING, NEW YORK

Part I. (A second and concluding part will be shown in the May issue)

*Genesee Valley Trust
Company Building,
Rochester, N. Y.*

*"Herons," a small bronze. Albert
T. Stewart, Sculptor*



*Voorhees, Gmelin &
Walker, Architects*

*"Leda and the Swan," for which
Albert T. Stewart received the
Avery Prize*





Ridge Road Bridge over the Genesee River, Rochester, N. Y. Gehron & Ross, Architects; Frank P. McKibben, Engineer. Drawing by Chester B. Price



*House of Henry L. Finch, Rumson, N. J.
Charles H. Higgins, Architect*



Apse, Church of the Most Precious Blood of Our Lord, Philadelphia. George I. Lovatt, Architect



*Chapel, Kent School, Kent, Conn. Roger H. Bullard
and Shreve, Lamb & Harmon, Associate Architects.
Drawing by Schell Lewis*



United Masonic Temple, Washington, D. C. Corbett, Harrison & MacMurray, Architects. Drawing by Hugh Ferriss



"Mayfair Lane," Buffalo, N. Y. Edward B. Green & Sons—Albert Hart Hopkins, Architects



Pierced tile, "The Hunt." Designed and executed by American Encaustic Tiling Company

Church of the Heavenly Rest, New York City. Mayers, Murray & Phillip, Architects. The architects received Honorable Mention for the excellence of their work



Screen for Child's Nursery, "Alice in Wonderland." Designed and executed by Greenwich House Workshops

Church of the Heavenly Rest, New York City. Nave, looking toward altar. Mayers, Murray & Phillip, Architects



Pierced tile, "The Hunt." Designed and executed by American Encaustic Tiling Company



Church of the Immaculate Conception, Fall River, Mass. Maginnis & Walsh, Architects. The detail of the main door is shown below



The central entrance, Church of the Immaculate Conception, Fall River, Mass. Maginnis & Walsh, Architects



First Presbyterian Church, Greensboro, N. C. Nave, looking toward rear. Hobart Upjohn, Architect



High School, Lake George, N. Y. Edward Shepard Hewitt, Architect



Wrought-iron door hinge, Church of the Heavenly Rest, New York City. Mayers, Murray & Phillip, Architects. Executed by Os-trander & Eshle-man, Inc.

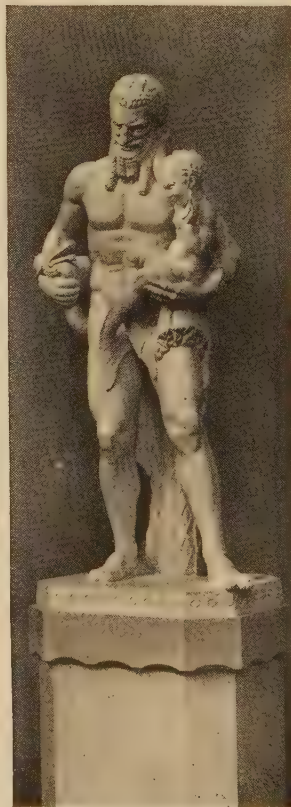


Wrought-iron door for Stanley Resor, New York City. Designed and executed by Samuel Yellin



P. W. French Building, New York City

"Triton," a fountain design. Joseph Kiselewski, Sculptor, American Academy in Rome



Office of Harry Allan Jacobs, Architect



A suggestive rhythm in a repeated single spiral theme

Research in a Laboratory of Design

By Rutherford Boyd

Copyright, 1930, by Rutherford Boyd

THE world waits for news—morning headlines feature a gigantic lens sprayed of molten quartz, or a column and a half on antarctic geology with portrait in television-jazz of the scientist. We read: a new endowment specified, organized, regulated; and even a collection of negatives and photographs—often all that remains of deserving relics in American architecture—to be filed in archives of a government bureau. In this milieu, surrounded with steel systematizing devices, a deskpad schedule for each moment of the day, secretaries preparing the evening's speech, among phone calls and callers, can the human creature who once awaited inspiration, who lived to seek for something he could not quite define, but with the bravery of ignorance called it "beauty"—can he afford not to *know*? His pencil hits the paper in tempo with this era—the formula must be ready and a fund of knowledge classified and available on the instant.

Under this tension the unendowed, lacking millions, who still struggle in the field of art, can only envy achievements in science, with its superb equipment and co-operation, and in stolen moments of leisure seek for light in their own darkness, to penetrate that mystery and misunderstanding which so conceal the ultimate enigma of Design.



What is Design? Is it Function materialized? Is it a method of expressing Beauty? Is it Proportion—and if so, what is Proportion? Answer these questions, not with the data of history or an argument based on how nature did it, or even how the Greeks did it—and the desire for another endowment may be justified. A laboratory of design equipped with the spirit and enthusiasm to experiment, with no job to deliver—a place where one may admit without fear, "I do not know!"

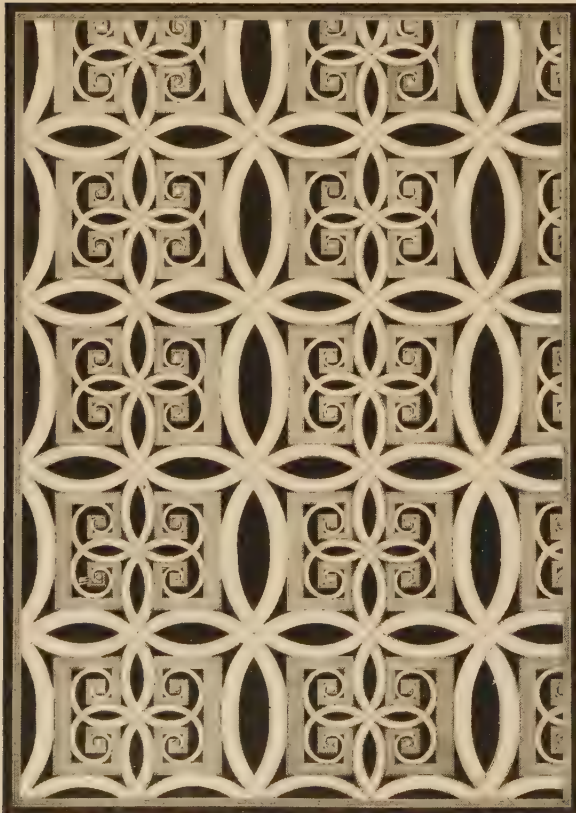
To penetrate beyond the superficial appearance of design and to understand how intuition and intelligence have evolved that fabric of a dream into that reality of form. Familiar yet strange forms in nature fascinated the designer—he imitated and adapted them to his needs and pleasures. We marvel to see him clinging through antiquity to a very small group of form-facts; forever taking them apart and putting them together, long habituated in the almost changeless grooves worn by technic and the tools of his craft, frequently oppressed, even coerced, by custom and tradition into a certain "style." Then will occur some social reaction or a great change in environment and again we observe the sequence of imitation, adaptation, and the tendency toward abstraction.

The designer, whether architect,



Four rectangular spirals from each pole with proportionately increasing widths

The diagram at the foot of page 214 is the clue to the unit of the design illustrated below



The unit of "triple osculating" spirals expanded and arranged in a tangency field which develops compound shapes with grace and variety of interval

painter, craftsman, or sculptor, through this recurring process began to conceive vaguely of some hidden force at work within the design, subtly yet inescapably affecting his project. Gradually he came to recognize this power which imposed its unknown laws and privileges on the form which he created and called it by many names. We now recognize it as "proportion." Used vaguely and indefinitely, proportion has come to denote a *quality* of form—actually it is a relation of *quantity*—the ratio of the parts of a design to each other and, with more vital significance, the relation of the parts to the whole. It is structure, built of interrelated forms. Thus recently in the field of design, perhaps stimulated by contemporary attempts at abstractions in form and experiments in color, we approach a conception of Proportion that is a far cry from the view-point of the one who first admired the lotus and adapted the palmette.

Let us experiment in a laboratory of Design, giving no recognition to our great inheritance of tradition and taste. We will definitely put aside all preconceptions of form and conceive of it as a body of dimensional relations, as so much height, width, and thickness. Conceive of it



Compare this with the design shown at the head of page 209 and note difference in position of the unit, in thrust, and in appeal to the eye

as a Shape, not the result of a process in crystal or ferro-concrete, not as some stylish or out-moded thing, not as conditioned by its functioning, nor as precious or vulgar—only as Form possessing the dimensional qualities, its own innate proportion. We adjust our apparatus of logic and arrange our instruments to observe and develop design properties that can be evolved out of the form itself.

One of the finest instruments in this laboratory was brought close to perfection by the Pythagorean brotherhood in their study of proportion. Taking over the facts of practical mensuration from ancient Egypt, the Greek philosophers and mathematicians generalized them into the geometry which they bequeathed to us in the books of Euclid. They studied and developed a concept in mathematics which, expressed in form, creates a structure in which every part bears a consistent relation to every other part, and all are directly so related to the whole. This concept is known as a "geometric progression", and it may be defined as a series in which each successive term increases in a constant proportion. Each magnitude (or number or term) bears the same relation to the suc-



A continuous band of two rectangular spirals from each pole, interlocked and repeated with identical bands

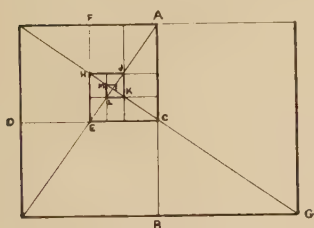
A powerful pattern in tangent logarithmic spirals based on the constant ratio is shown below



root of two—is an unique shape. It is the only rectangle whose half may be similar in shape to the whole.

The logarithmic or equiangular spiral constructed on this ratio always doubles the length of its radius vector with every half-rotation of the spiral from the pole. Another property of this particular curve is that on *any* diameter through its pole the part (*AB*) cut off by the closed portion of the spiral equals the part (*BC*) extending to the outer curve.

This characteristic is the source of the design (also illustrated in a previous article by the author) which was called "The Spiral of the Triple Osculation." If the spiral is rotated halfway and placed tangent at each end of the two spirals, they will also be tangent at a third point, and a straight line can be drawn passing precisely through the three points of tangency and the two poles of the spiral. If the spirals were prolonged beyond these points they would never meet again. This



phenomenon is the source or form-theme of several of these illustrations.

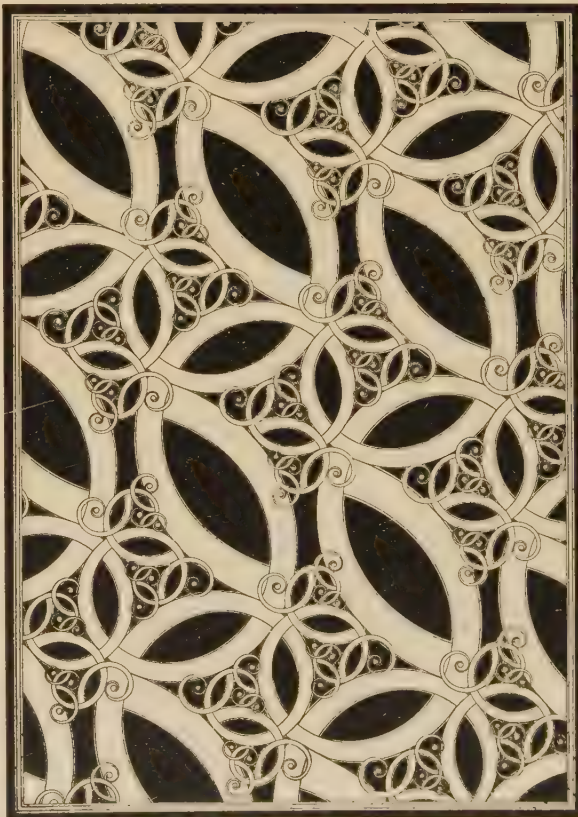
A graphic representation of the $\sqrt{2}$ geometric progression in the rectangle of this ratio is shown by drawing

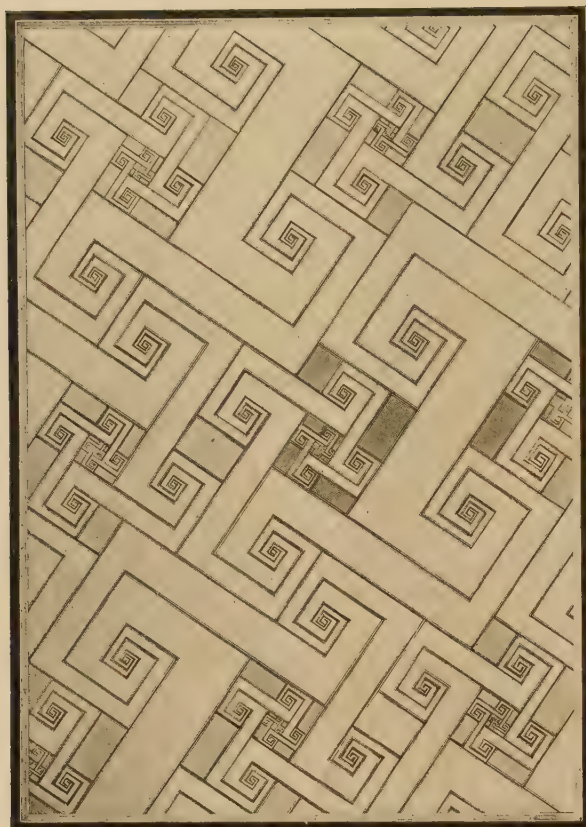
a line perpendicular to the diagonal from a corner and intersecting the opposite side of the rectangle at *A*. This bisects the longer side, and thus by drawing a line (*AB*) parallel to the short side through this bisection, the rectangle is divided into two equal rectangles each similar in shape to the whole, but at right angles in position to it. Of course the diagonal intersects this line in the centre of the rectangle, *C*, and another line (*CD*), parallel to the longer side, will bisect the half rectangle. This process can be repeated an infinite number of times (*EF*, etc.), limited in practice only by the size of the original rectangle. The construction can be developed outwardly by a similar process. Each step thus forms the short side of a new rectangle



In this design each unit is a true diagonal form terminating in spirals on each end

Below, a repetition in related position of identical spirals, all of the same width





Illustrating the perfect geometric progression in each successive line and width of band

The design below develops a secondary spiral movement within the triple osculation unit

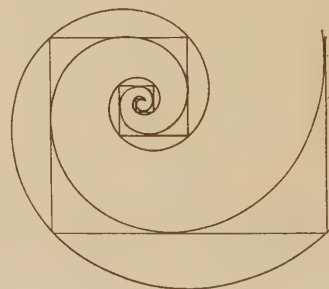


This design, based on "conjugate hyperbolas," exhibits a curious union of strength and delicacy that seems inherent to this basic theme

similar to the whole by bisecting the long side of the previous step, and this series forms a rectangular approximation of the spiral in the diagram.

As a source for design ideas this "rectangular spiral" form will be found developed in these drawings. This rectangular spiral is a graph in its successive steps of the $\sqrt{2}$ geometrical progression. If we assume any line in this rectangular spiral to be unity, and continue to multiply each successive length by the constant ratio ($\sqrt{2}$) of the series, the increasing sides of the figure will measure 1, $\sqrt{2}$, 2, $2\sqrt{2}$, 4, $4\sqrt{2}$, 8, $8\sqrt{2}$, and so on. Look again at the diagram and observe that each successive *parallel* and alternate side doubles in length. Very significant in the structure is this *double* nature of the series.

The "pole" of this rectangular form is also the pole of the $\sqrt{2}$ logarithmic spiral, which is tangent to each successive side of the





A design of interlocked "rectangular" and logarithmic spiral units. It is interesting to note the reminiscent effect of a recurring quatrefoil



A field of compound forms, each half a true spiral which transforms into a rectangular spiral

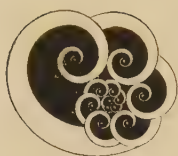
rectangular spiral as indicated. Also another, but identically similar, spiral will pass accurately through each corner. This phase of the experiment showing the two forms in various combinations is developed in our designs.

Inevitably these recall by association the meander and spirals of Cretan, Greek and Egyptian design—with this vital difference: the intervals between the sides of a Greek meander pattern were intended to be equal, just as in ancient spiral patterns the intervals between the whorls were equal and similar to the Archimedean spiral. In our laboratory themes each interval increases precisely in the same basic ratio.

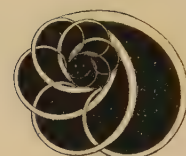
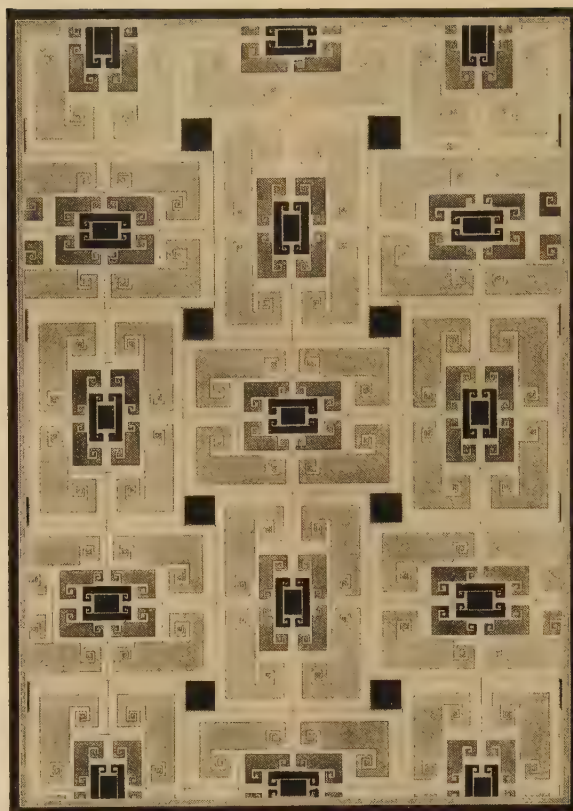
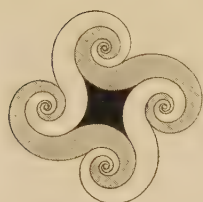
All these designs are drawn with accuracy without regard for quality of line, and the tonal variations are used mainly to emphasize the structural pattern. No attempt has been made in this group to do more than suggest the potentialities of this conception when applied to problems in three dimensions. A preliminary survey and these few experiments are sufficient to indicate that there must be developed a group of basic themes which will embody some dimensional attributes of the constant ratio and its progression. In this group would also be in-

A "conjugate hyperbola" theme in which each reserve is relatively spaced in area and tone

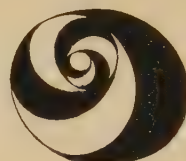




These four individual units are developed entirely from segments of the logarithmic spiral in this constant ratio with the series of intervals varying in the same proportion



This pattern on the left, composed of repeated "rectangular spiral" forms in the constant ratio, has related tonal values in the successive intervals of the design



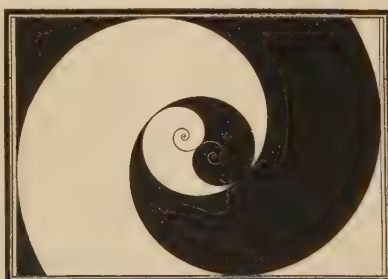
cluded the ellipse, whose two axes have this constant ratio, the two segments of the parabola that can be described by this ratio, and that pair of conjugate hyperbolas whose asymptotes coincide with the diagonals of the ratio rectangle. Incidentally, these drawings are all presented in rectangles of the selected ratio.

One or two of the most stimulating experiments with the hyperbolas illustrate the subtle transitions from their curve at the vertex to their gradual approach to a straight-line form.

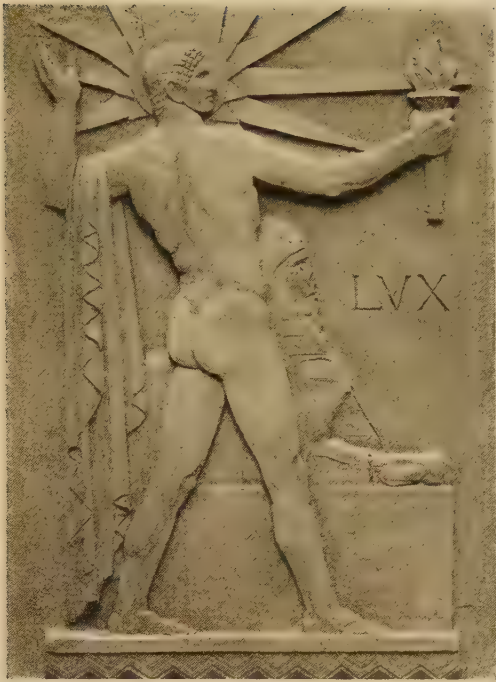
These twenty-odd drawings will focus attention on the attributes in Design of Proportion and visualize a beginning in a region of experimental architecture in Form. The mechanism of geometry was developed out of practical problems while decorators were still going about

tying bits of plant life and the horns of animals to edifices as "ornament"! To-day we have almost lost this habit, but the prevalent use of simple areas, unadorned lines, and curves continues with little guidance beyond the taste of the individual—and he, like all of us, cannot escape the three dimensions in which his creations exist. Any qualities in the creative work of the designer must coexist with the dimensions that confine his project. These dimensions can be understood and appreciated only after a thorough study of their geometry.

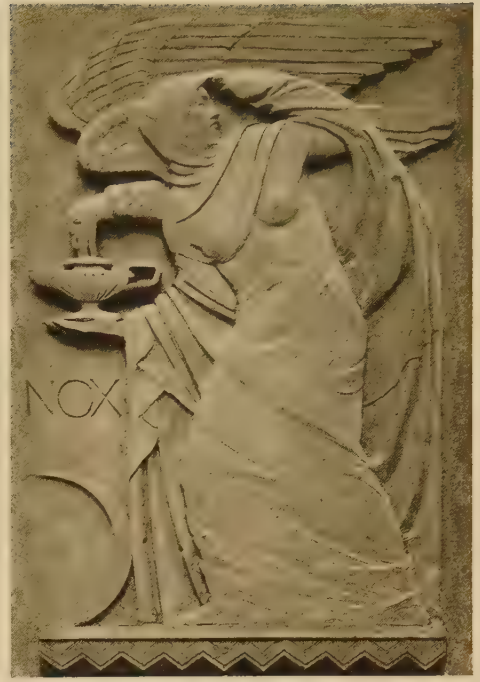
In the language of Form these experiments developed in graphic form in our Laboratory of Design must speak for themselves and in their vocabulary will be evolved new shapes which will appeal to the eye of the mind.



A development of the "triple osculation" theme



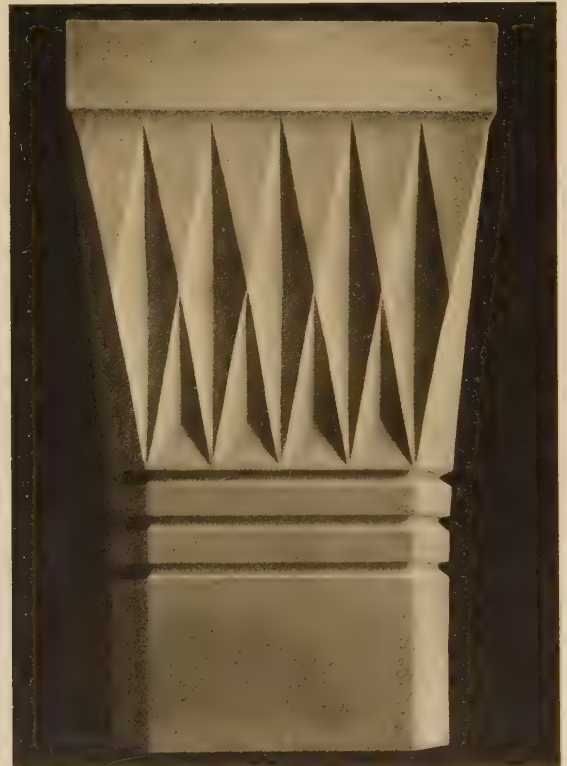
*A pair of panels,
"Light" and "Dark-
ness," on the National
Academy of Sciences,
Washington, D. C.
With Bertram G.
Goodhue*



Some Recent Sculpture by Lee Lawrie



*A detail over Children's Doorway, Los Angeles
Public Library. With Bertram G. Goodhue,
B. G. Goodhue Associates, and C. M. Winslow*



*A column capital high up on the central tower,
Nebraska State Capitol. With Bertram G. Good-
hue and Bertram G. Goodhue Associates*

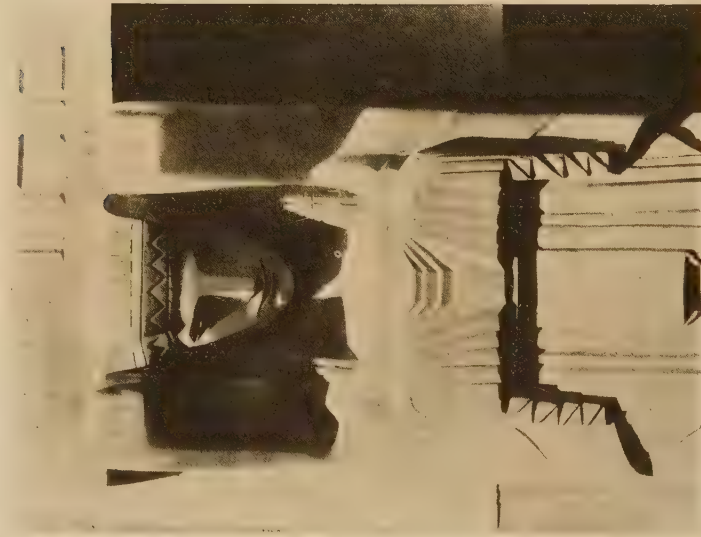
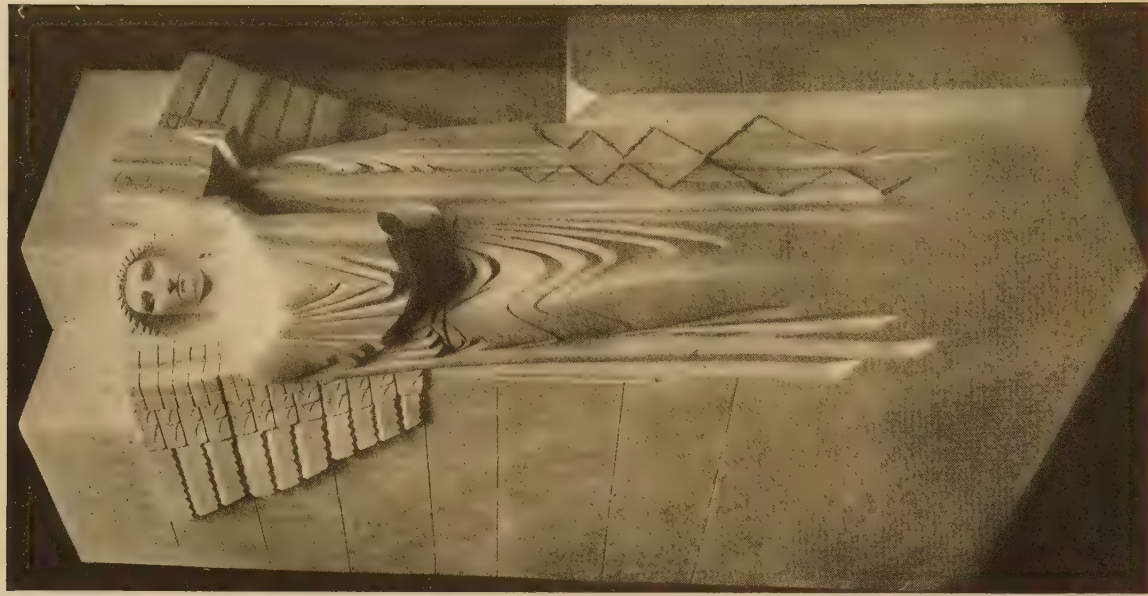


Figure flanking Children's Doorway, Los Angeles Public Library. With Bertram G. Goodhue, Bertram G. Goodhue Associates, and Carleton M. Winslow



A pair of figures from the Church of the Heavenly Rest, New York City. With Mayers, Murray & Phillip



Figures for central portal, Cathedral of St. John the Divine, New York. With Cram & Ferguson

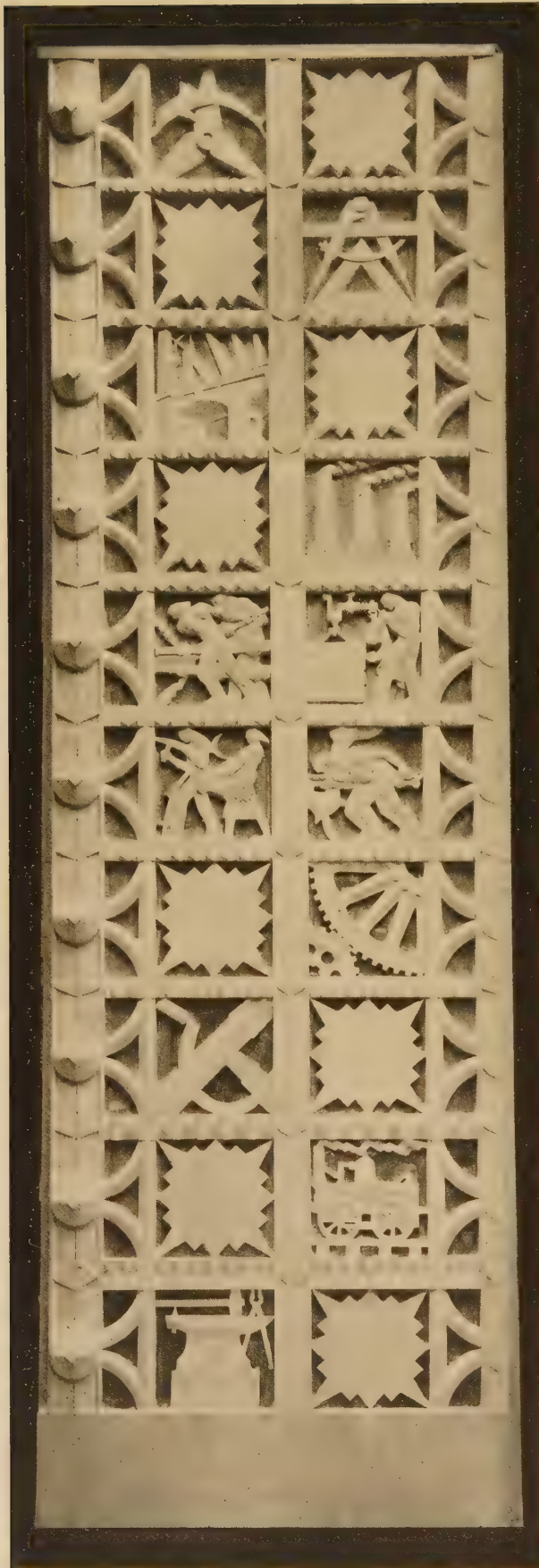


Figure of "Civilization," inside Los Angeles Public Library. With Bertram G. Goodhue, Bertram G. Goodhue Associates, and Carleton M. Winslow

Model for door, Engineers' Building, Harrisburg, Pa. With Gehron & Ross





*Stars of East and West—pylon panels on the Los Angeles Public Library.
With Bertram G. Goodhue, Bertram G. Goodhue Associates, and Carleton M. Winslow*



*"The Seiners," a panel on the Bank of Hawaii, Honolulu.
With Mayers, Murray & Phillip*



*"Passing the Torch," a panel on the Los Angeles Public Library.
With Bertram G. Goodhue, Bertram G. Goodhue Associates, and Carleton M. Winslow*



*Fountain for
Children's Court,
Los Angeles
Public Library*

*With Bertram G.
Goodhue, B. G.
Goodhue Associates,
and Carleton M.
Winslow*



*Overdoor treatment of a memorial entrance,
St. Thomas's Church, New York City. With
Bertram G. Goodhue*

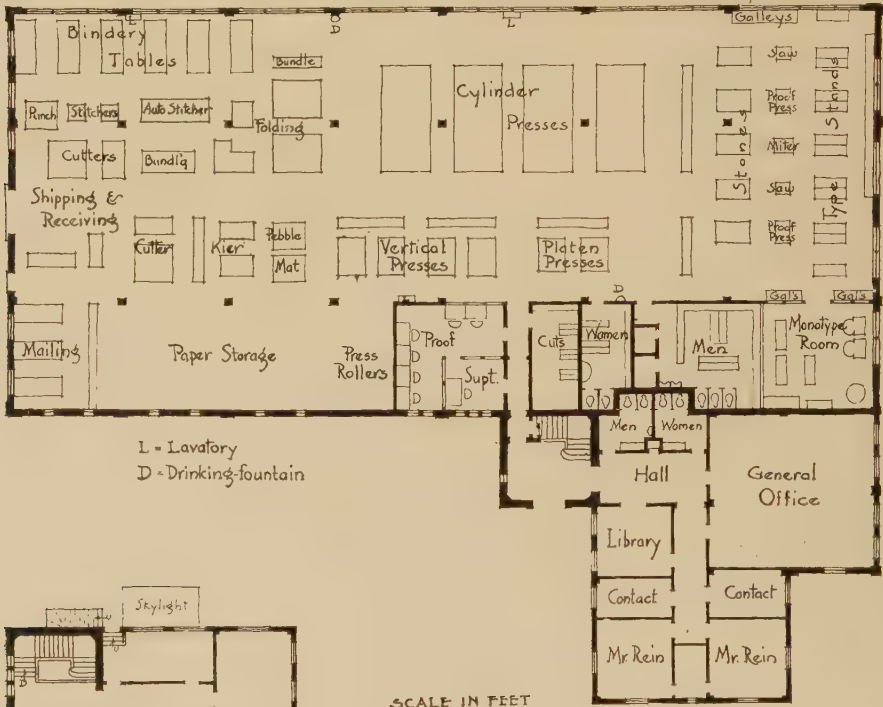
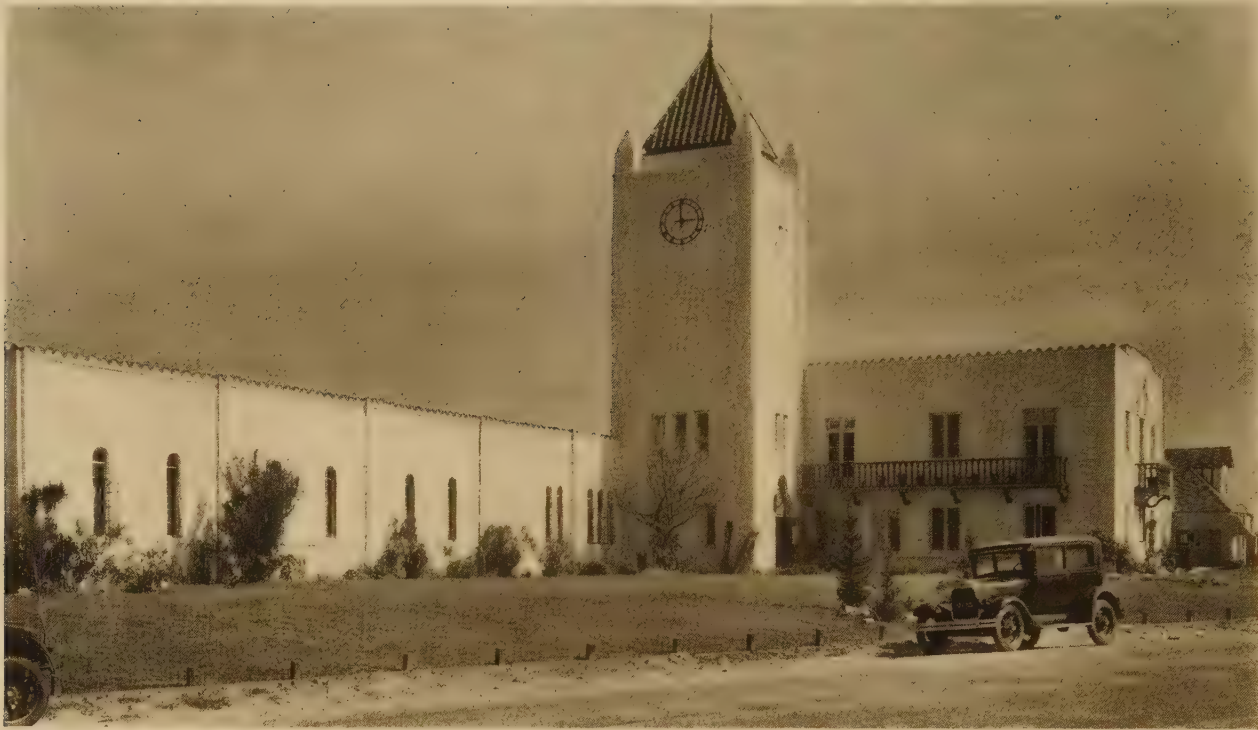


*A decorative spot on a band course, Fidelity Mutual Insurance Company Building, Philadelphia.
With Zantzinger, Borie & Medary*

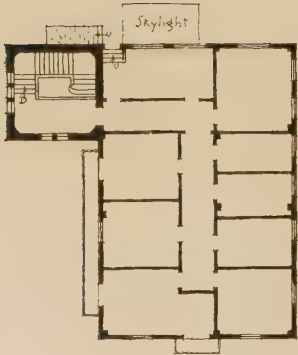


Photographs by Tebbs & Knell, Inc.

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HOWELL & THOMAS, ARCHITECTS



FIRST FLOOR PLAN



SECOND FLOOR PLAN

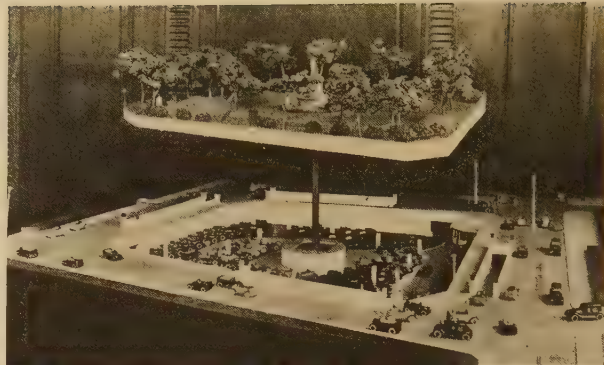
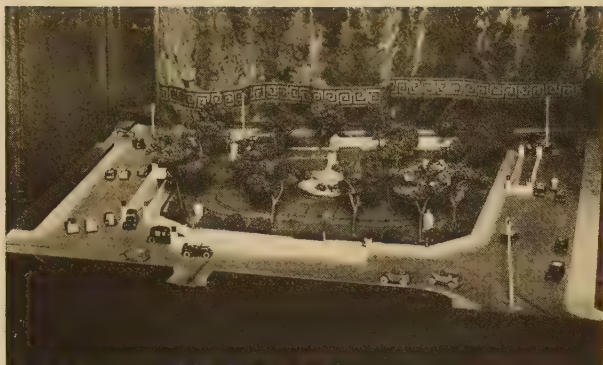
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HOUSTON, TEX.

HOWELL & THOMAS, ARCHITECTS



Details of main entrance, and balcony along second-story offices

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HOWELL & THOMAS, ARCHITECTS



Model of a proposed scheme for parking cars under Leicester Square, London, as sponsored by the Automobile Association

Architectural News in Photographs

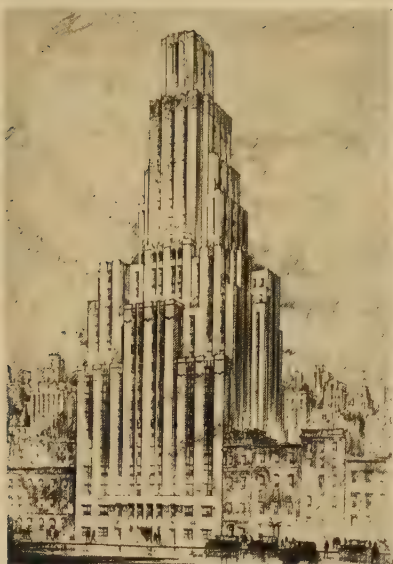


The proposed chapel for Trinity College, Hartford, Conn. Frohman, Robb & Little, associated architects

The Gerald MacDonald Memorial Retreat House and Language School for South China. Office of Henry J. McGill, architect

Proposed municipal centre, with New York's old City Hall in foreground. Francis S. Swales, architect





The Town House now under construction on East 38th Street, New York City. Bowden & Russell, architects; Emory Roth, consultant



The proposed Fashion Building for Amos Parrish & Company, New York City. Designed by William B. Chalfant for execution in full color



New York City's proposed \$8,000,000 Police Headquarters Building. Joseph H. Freedlander, architect

An office building now under construction at 19 Rector Street, New York City. Lafayette A. Goldstone, architect



Preliminary perspective of the New York Curb Exchange Building. Starrett & Van Vleck, architects

The most recent perspective study of the building for 42d Street and Fifth Avenue, New York City. Shreve, Lamb & Harmon, architects



BOOK REVIEWS

PERSPECTIVE DRAWING. By JOSEPH BRAHDY. 104 pages, 6 by 9 inches. Illustrations from drawings, photographs, and diagrams. New York: 1929: D. Van Nostrand Company, Inc. \$2.

A text-book prepared with the needs of vocational high school and vocational college courses in mind. Presented so that the student needs only a minimum of mathematics and no formal descriptive geometry.

ARCHITECTURAL DRAWING. By G. D. GORDON HAKE and EUSTACE H. BUTTON. 96 pages, 6 by 8½ inches. Illustrated with many diagrams and sketches. Printed in Great Britain. New York: 1929: Charles Scribner's Sons. \$3.75.

A text-book intended primarily for first-year work in schools of architecture, but a book that would be particularly helpful for students attempting to gain their education outside of these institutions.

YEAR BOOK OF THE BOSTON ARCHITECTURAL CLUB. Foreword by RALPH T. WALKER. 102 pages (plus advertisements), 10½ by 13½ inches. Almost entirely illustrations. Boston: 1929: Boston Architectural Club. \$5.

YEAR BOOK OF THE ANNUAL ARCHITECTURAL EXHIBITION, PHILADELPHIA. 317 pages (plus advertisements), 9¼ by 11¾ inches. Almost entirely illustrations. Philadelphia: 1929: Philadelphia Chapter, A. I. A. and T Square Club. \$2.50.

Contemporary pictorial records which, if regularly collected, form a valuable reference source in the architect's library.

THROUGH FRANCE WITH A SKETCHBOOK. By SAMUEL CHAMBERLAIN. 109 pages, 8¾ by 11 inches. Illustrated with the author's drawings and etchings. New York: 1929: Robert M. McBride & Company. \$6.

Samuel Chamberlain's drawings and the stories of his wanderings through Europe have appeared in several of the architectural journals during the last few years. It is a great satisfaction to see them brought together between permanent covers.

LA BOURGOGNE: L'ARCHITECTURE. Three volumes. By LOUIS HAUTECŒUR. 200 pages of introduction and descriptions, 11 by 15 inches, and 189 plates. Illustrations from photographs and plans. Paper binding. Paris and Brussels: 1929: Les Editions G. Van Oest. \$26.

A magnificent compilation of the architectural treasures of Burgundy. The plates are made from excellent photographs in the colotype process, pre-

serving the detail with great fidelity. These three volumes are part of *Les Richesses d'Art de la France*—documents published under the patronage of the Ministry of Public Instruction and of Foreign Arts.

L'ARCHITECTURE FRANÇOISE. Three volumes. By JEAN MARIETTE. Introduction by Louis Hautecœur. 32 pages of introduction and descriptions, 12 by 17½ inches, and 562 plates. In portfolios. Paris and Brussels: 1929: Les Editions G. Van Oest. \$72.

A reimpression of the original edition of 1727, bringing once more within reach this famous compilation of architectural classics, some of which begin to look a bit naïve, but most of which become more satisfying with the passing of time. As the original title-page proclaims, the compilation includes plans, elevations, sections, and profiles "des Eglises, Palais, Hôtels & Maisons particulières de Paris, & des Châteaux & Maisons de Campagne ou de Plaisance des Environs, & de Plusieurs autres Endroits de France."

SMALL HOMES OF ARCHITECTURAL DISTINCTION. Edited by ROBERT T. JONES. 278 pages, 8½ by 12¼ inches. New York: 1929: Harper & Brothers. \$5.

Here are brought together photographs, plans, and perspective drawings of houses designed by The Architects' Small House Service Bureau. The designs alone have become familiar through the pages of newspapers, the finished results being seldom seen in print. Here many of them are assembled to bear witness to the Bureau's constant and consistent endeavors in the realm of the house containing but three to six rooms.

THE FUNDAMENTALS OF GOOD BANK BUILDING. By ALFRED HOPKINS. 142 pages, 6¼ by 9½ inches. Illustrations from plans, photographs and drawings. New York: 1929: The Bankers Publishing Company. \$7.50.

The banker's architectural problem as presented by the architect, with a wealth of related anecdote to point a moral and adorn the tale.

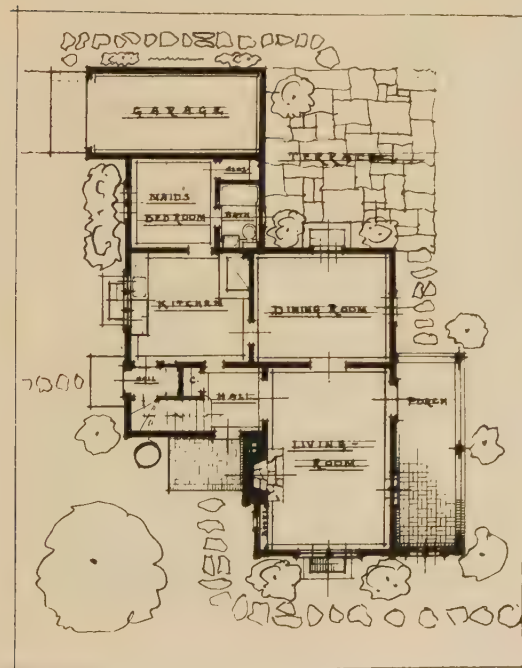
DESIGNS FOR KANSAS FARM HOMES. By H. E. WICHERS. 105 pages, 6 by 9 inches. Illustrated with plans and black-and-white perspectives. Pamphlet binding. Manhattan, Kansas: Kansas State Agricultural College: 1929. Free.

COMPRESSIVE STRENGTH OF CLAY BRICK WALLS. By A. H. STANG, D. E. PARSONS, J. W. MCBURNEY. 65 pages, 5¾ by 9¼ inches. Illustrated with photographs and diagrams. Pamphlet binding. Bureau of Standards, Washington: 1929: U. S. Government Printing Office. 30 cents.

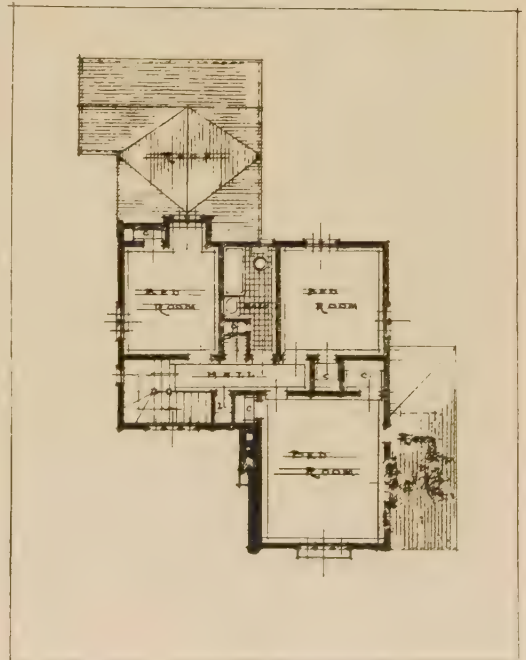


A HOUSE AT WYNNEWOOD, PA.
S. ARTHUR LOVE, JR., ARCHITECT

Photographs by Philip B. Wallace



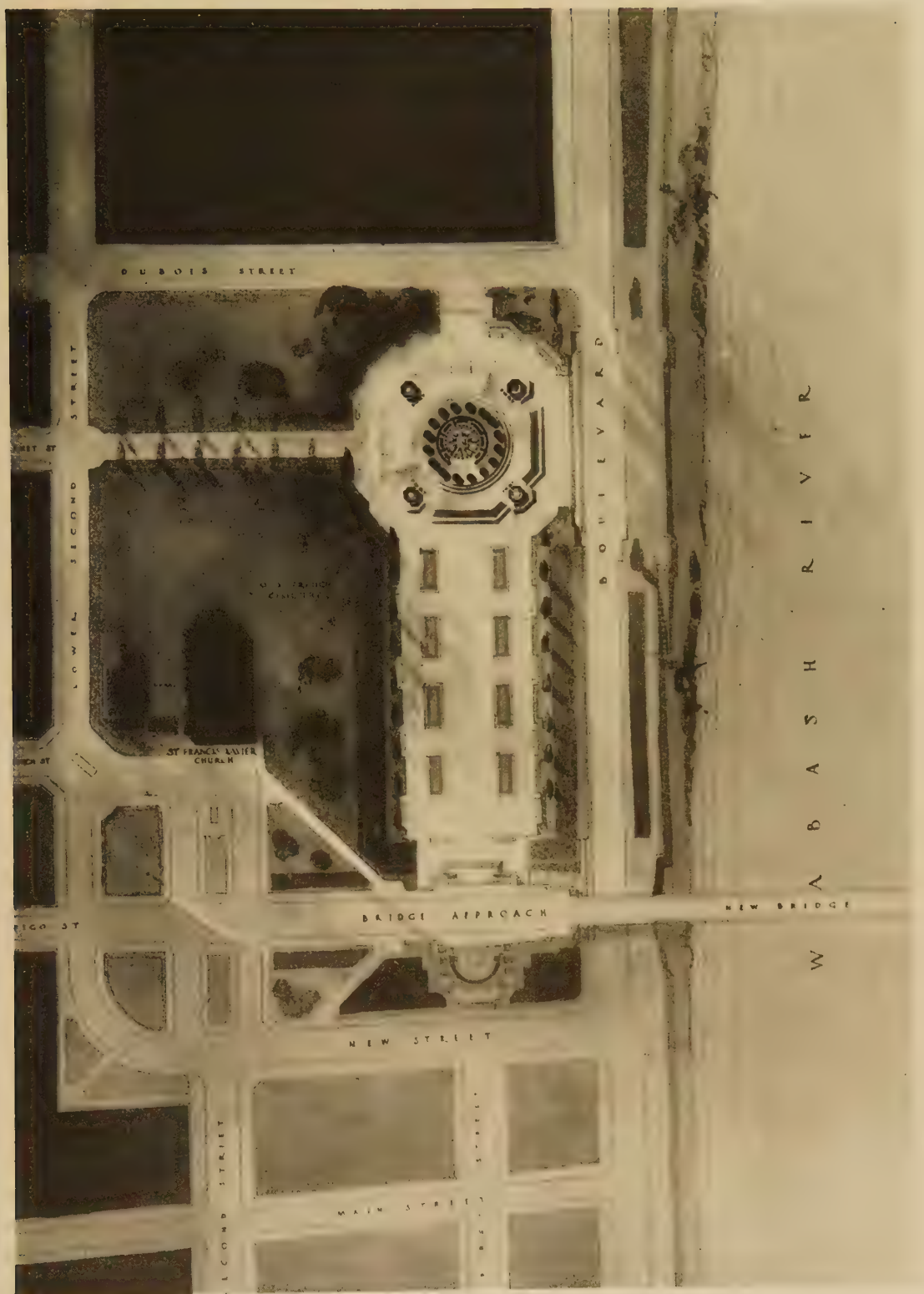
Mr. Love was awarded one of the first prizes of \$1,000 for the best eight-to twelve-room house in the third annual competition conducted by "The House Beautiful"





A HOUSE AT WYNNEWOOD, PA.

S. ARTHUR LOVE, JR., ARCHITECT



General Plan

By resolution of Congress a commission was established "for the purpose of designing and constructing at or near the site of Fort Sackville, in the city of Vincennes, Ind., a permanent memorial, commemorating the winning of the Old Northwest and the achievements of George Rogers Clark and his associates in the War of the American Revolution."
The drawings herewith show the winning design

THE GEORGE ROGERS CLARK MEMORIAL, VINCENNES, IND.

F. W. HIRONS, F. W. MELLOR, ARCHITECTS. BENNETT, PARSONS & FROST, ARCHITECTS OF GROUNDS



Main Elevation

THE GEORGE ROGERS CLARK MEMORIAL, VINCENNES, IND.

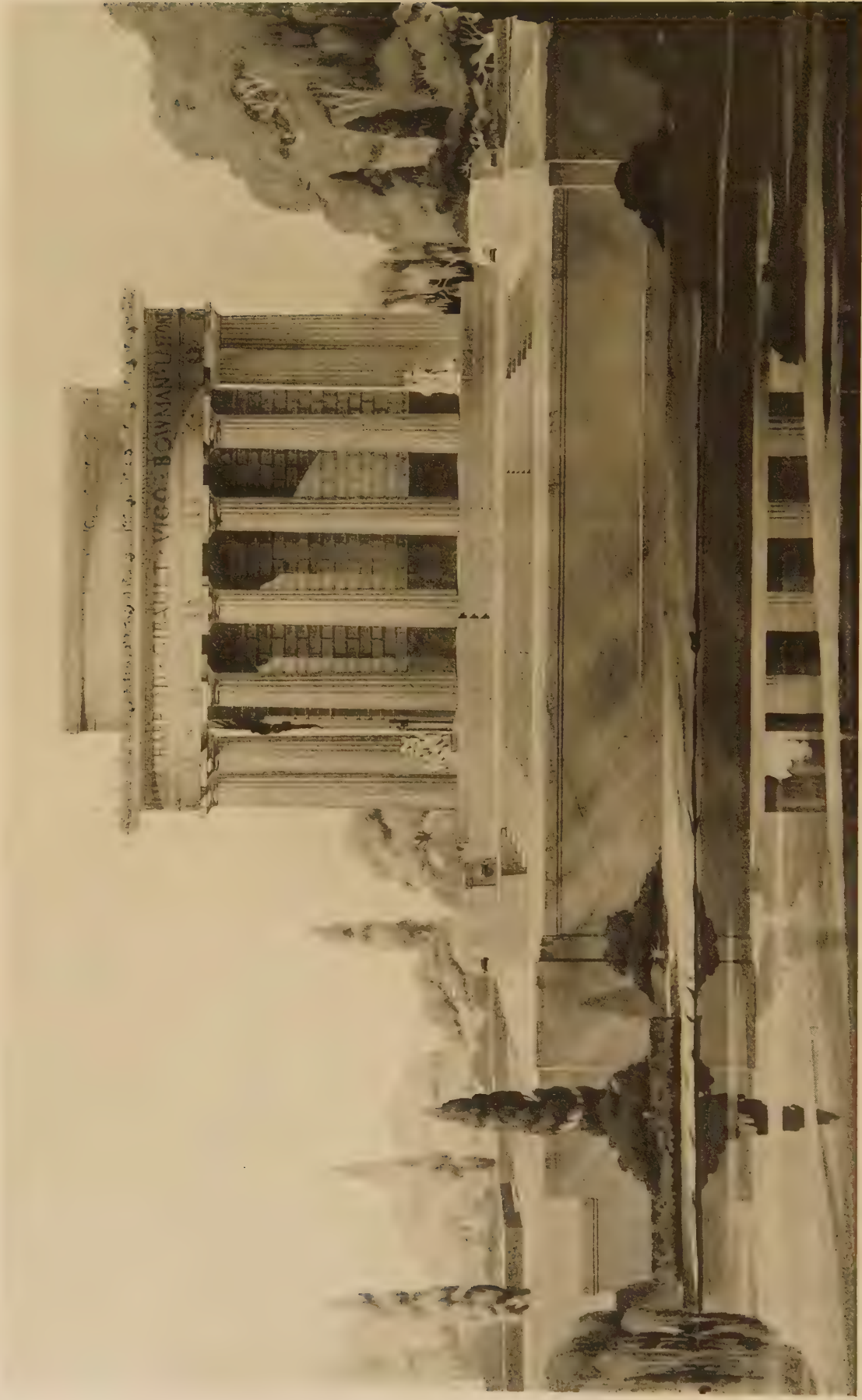
F. W. HIRONS, F. W. MELLOR, ARCHITECTS. BENNETT, PARSONS & FROST, ARCHITECTS OF GROUNDS



SECTION ON AXIS OF BARNET STREET

THE GEORGE ROGERS CLARK MEMORIAL, VINCENNES, IND.

F. W. HIRONS, F. W. MELLOR, ARCHITECTS. BENNETT, PARSONS & FROST, ARCHITECTS OF GROUNDS



Elevation from the River

THE GEORGE ROGERS CLARK MEMORIAL, VINCENNES, IND.

F. W. HIRONS, F. W. MELLOR, ARCHITECTS. BENNETT, PARSONS & FROST, ARCHITECTS OF GROUNDS



A Pictorial Review of Modern Architecture in Europe



By F. R. YERBURY, HON. A. R. I. B. A.



*Paris shop
front*

*Djo Bourgeois,
Architect*



A Paris shoe shop. Maurice Bizet, Architect





*A shoe shop,
Boulevard
Haussmann,
Paris*

*Maurice Bizet,
Architect*



*A perfumer's
shop, Paris*

*Débat Ponsan,
Architect*



An apartment in London, furnished and decorated by Easton & Robertson, Architects

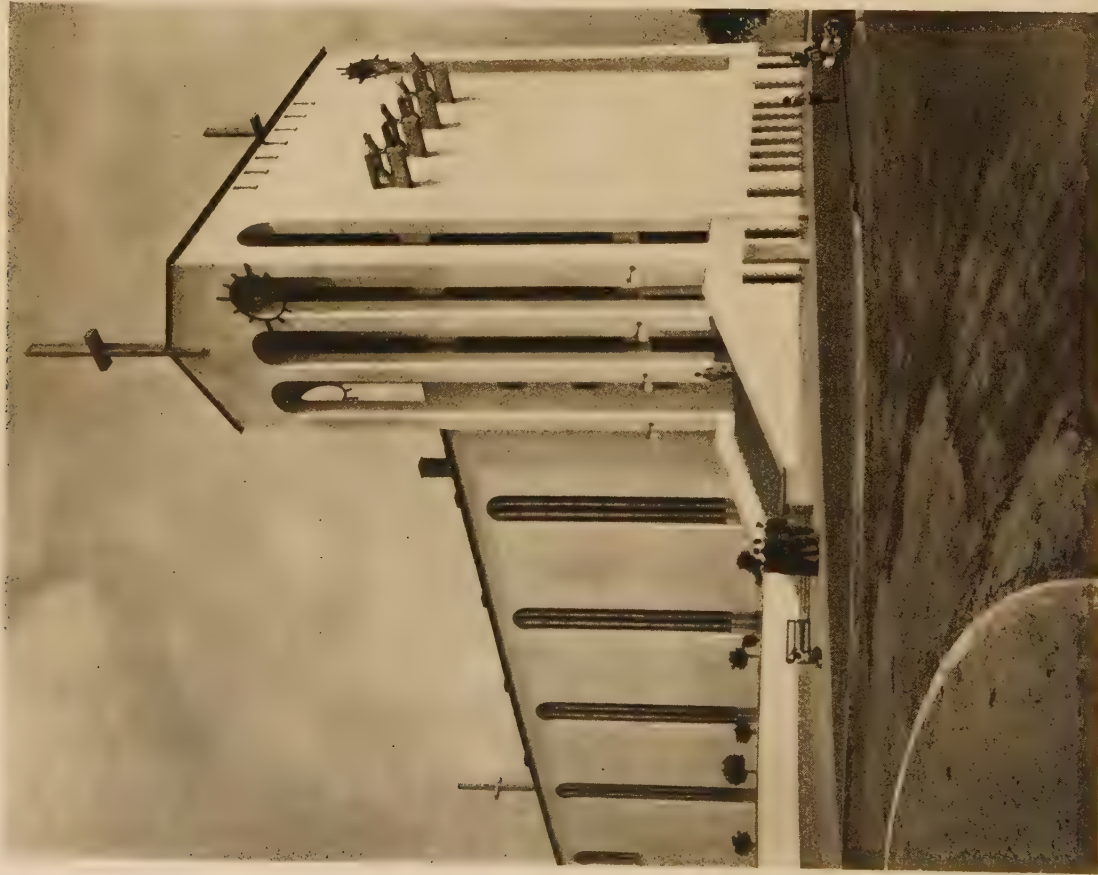




*An apartment in London,
furnished and decorated by
Easton & Robertson,
Architects*



*An apartment in London,
furnished and decorated by
Easton & Robertson,
Architects*



*A church built of concrete, Frankfurt, Germany.
Martin Weber, Architect*

Tuesday, January 21.—T. L. Pflueger in upon one of his annual visits from San Francisco to see the new in New York. As we sat at lunch, Pflueger greeting old friends among the architects and meeting new ones, he sketched some new bypaths in design—details of the San Francisco Stock Exchange, the 450 Sutter Building, and other recent works—induced by the necessity for economy. All of which prompted Pflueger to enunciate what seemed to me an irrefutable dictum in æsthetics, namely, that more and better architecture is produced under the rigid demands of economy than when the client has unlimited money to spend. It seems to be a sad but true commentary upon the architecture of to-day that if enough rope is given the architect in the way of unlimited means, he will surely hang himself. How often an architect displays with pride a piece of work with the apologetic, "Of course we had very little money to spend," intimating that without this handicap he would have produced a masterpiece! In all probability, if he had had the money he craved the result would not have been worth showing.

Thursday, January 23.—Up into the cold fastnesses of northern Park Avenue to an apartment-warming given by Lee Simonson in a creation of his for a gentleman who is head of one of the big broadcasting systems. It is a three-story affair, including the pent-house, the lower and top floors being done by Simonson in furthest modern, the middle floor being a very carefully studied piece of work in the traditional manner by Mrs. George Wilson—a sort of temperate zone, as it were, between Simonson's two floors. Some widely varying view-points were represented in the assemblage—that of Ralph Walker, Henry W. Kent, of the Metropolitan Museum; Henry Bultitude, the confirmed traditionalist; and many stylists, interior decorators, theatrical producers, sculptors, painters, and mere editors. The opinions expressed were no less varied, bouquets and brickbats being received with the undisturbed suavity which distinguishes Lee Simonson upon any occasion and in any company. An enthusiastic bit of praise for the designer's use of color would be met by an equally strong contention that the best view of the room was out through the window. Henry Bultitude sat in a modern chair of square metal tubing with gray leather pads and called for a doctor; he needed the removal of two vertebræ to adjust the small of his back to the leather rest. Doors from the dressing-room opening into clothes presses, massage folding-bed, trays for shirts and ties—and finally the last door, into the corridor, bringing a sob of relief from one witness in the joy of finding a way out. Marvellously elaborate appointments for the prepara-



The Editor's Diary

tion and distribution of beverages—this on the top floor, with lighting effects ranging at will from a Palm Beach sunlight to an igloo moonlight. Hundreds of cigarette containers in silver—each more intricate and baffling than the last in respect to where one opened it and whether there were any cigarettes inside even if one did. Crashes of jazz orchestra unexpectedly breaking out behind one's back when some investigator touched the radio control with a too curious finger—and as paralyzing a descent of absolute silence when the finger was as quickly withdrawn. Bed built in at an angle of thirty degrees with the side wall, giving opportunity for triangular rugs on either side. Rare woods in wall panels—one of them startlingly reminiscent of the painted-grain pine the last generation used to achieve with paint, a comb, and a piece of rag. Piano built as an integral part of side wall, keyboard the only projection. Radio under control in every room—not always sufficiently under. Bultitude, the Englishman, peevish because he couldn't find any tea. Nevertheless, a very enjoyable apartment-warming.

Friday, January 24.—The Beaux-Arts Ball, like Barnum's circus, was bigger and better than ever this year. Philip A. Cusachs and Ben Ali Haggin produced it in a setting designed by James Monroe Hewlett. Kenneth Murchison, as usual, directed the music. Among the famous personages who contributed to the gaiety of the occasion were Messrs. Hewlett as Michelangelo, Raymond Hood as Bramante, Fred Hiron as Michelozzo, Ernest Peixotto as Botticelli, Ezra Winter as Benozzo Gozzoli, Edward McCartan as Donatello, Ulric Ellerhusen as Andrea Della Robbia, Gaetano Cecere as his brother, Giovanni, John Mead Howells as Cardinal Woolsey, D. Putnam Brinley as Don Quixote with Julian C. Levi as Sancho Panza, Arthur Loomis Harmon as Cardinal Mendoza, Philip A. Cusachs as King Ferdinand, J. H. Freeland as the Constable of Castile, and Arthur Ware as Christopher Columbus. These were but a few of the high lights in the assemblage of some three thousand which formed a kaleidoscopic panorama of gorgeous color.

Saturday, January 25.—Thomas T. Waterman writes from Williamsburg that the restoration down there is coming along slowly. Fortunately, there has been found quite recently in England an early engraving of the College, Governor's Palace and Capitol. The importance of this find is tremendous in that it supplies the only view extant showing the Palace, one of two available views of the Capitol and that which substantiates a good deal of carefully studied guesswork as to the College.

Monday, January 27.—Major L. R. Lohr, Manager of the Chicago's World's Fair of 1933, made clear at a recent luncheon some of the things which the Fair is not to be, as well as what it will try to achieve. The Fair must have a new theme; it cannot pattern after the exhibit fairs of the past. The day has gone by when people will travel far to see what is now available at their very doors. This Fair, then, is going to be a dramatization of science—one hundred years of applied science. There are about eight hundred acres in the site including the water area. The plan is asymmetrical and the buildings are going to be constructed with a keen eye on salvage possibilities.

Tuesday, January 28.—C. Herrick Hammond brings out some rather startling figures with regard to subjects upon which there has been much loose discussion and probably considerable guesswork. He says:

"In twenty-seven States of the Union no building can be erected unless a registered or licensed architect is engaged. Seventy per cent of the buildings in this country costing \$75,000 and upward are designed in offices of members of the American Institute of Architects."

On the other hand, Charles H. Cheney says this: "Building inspectors tell us that the number of plans which came to them designed by competent architects or designers were still approximately only about ten to fifteen per cent of the total number of new buildings erected, and that the proportion of good designs does not seem to be materially increasing."

Wednesday, January 29.—Called upon Egerton Swartwout and kept him away from his work while we talked for an hour or two on the subject of present-day architecture and what it is coming to. Swartwout feels that the present disinclination to use the classic columns is a passing phase of revolt. The use of square piers instead of what has universally been regarded as the more beautiful form of support is, in his opinion, merely a spasm occasioned by our reluctance to admit anything as being better than what we ourselves can do. We forget the fact that men used square piers and eventually abandoned them

in favor of a more pleasing form of support. Swartwout feels that if we can but continue architectural education upon the foundation of familiarity with what has been done in the past, we shall not stray permanently from the straight and broad road of art progress.

Thursday, January 30.—Preliminary to the formal opening exercises of the League Exhibition, a hundred and fifty or more sat down to dinner in the clubhouse. Found myself seated between Albert I. Stewart, winner of the Avery Prize for small sculpture, and Boardman Robinson, to whom was awarded the Gold Medal in Mural Painting. Mrs. Ely Kahn, across the table, ventured upon the resemblance of Robinson to George Bernard Shaw—a resemblance to which the painter objected strongly. All he would admit was that he might perhaps look like what Shaw would be if he ate meat. John Holabird, John Root, and Gilbert Hall were on from Chicago to take home the Gold Medal in Architecture, a well-deserved award "for the great distinction and high architectural quality they have achieved in the solution of the American office building." Near by sat Thomas Adams, whose retirement from the post of General Director of the Regional Plan of New York has just been announced. Fortunately Mr. Adams's aid and judgment are still to be on call for the Regional Plan while he establishes himself as an independent consultant, in addition to carrying on research work at Harvard and Massachusetts Tech.

After the dinner we proceeded to the Fine Arts Building for the traditional procession of League officers in their robes, behind brilliant banners designating the arts of architecture, painting, and sculpture, after which the president, Raymond Hood, presented the medals and announced the awards.

Among the previous recipients of medals who attended were Violet Oakley and Pope Barney, over from Philadelphia for the occasion.

Saturday, February 1.—Met James Monroe Hewlett to-night at a showing of Scottish garden and landscape photographs in color by Edward R. Hewitt. Mr. Hewlett is just leaving with President Hammond on a long tour west on which they will visit many of the chapters of the A. I. A. and study the work that is being done by the organization—a month's task in a good cause.

Tuesday, February 4.—An enthusiastic company gathered at dinner to-night at The Architectural League to honor Lee Lawrie. Many of his fellow sculptors were there—Adams, Weinman, Hering, Jennewein, Friedlander, McCartan, Ellerhusen, Chambellan; also a number of the painters—Purvis, Brinley, Williams; as well as a larger number of

the profession with which Lawrie has collaborated in a manner that is unique. Charles Whitaker once said that Bertram Goodhue and Lee Lawrie worked together as closely as the two arms of one man. Surely never before in the history of art has sculpture been so intimately embodied in architecture as Lee Lawrie has done it in collaboration with Goodhue, with Gehron & Ross, and others.

There were many speeches, each one a tribute from the heart. Lawrie himself as usual was inarticulate. I believe he was induced to come to the dinner only with the distinct understanding that he should not have to speak. Nor was it necessary that he should, for the man's work, shown for the most part in photographs hung on the walls of the exhibition room about us, were more eloquent than any spoken word.

The dinner served as a formal opening of this, the second of The Architectural League's one-man shows, the first having been that of Holabird & Root.



Wednesday, February 5.—Robert Kohn told us an amusing anecdote today which reflects the conscientious architect's attitude toward his own work. Kohn's first big job, years ago, suddenly revealed to him with the dismantling of the front scaffolding, gave its designer an overwhelming sense of disappointment. Meeting Thomas Hastings immediately thereafter, his dejection so woefully apparent, Kohn replied to the latter's observation that he must have just lost his best friend: "Worse than that; I've just seen my first big job and it is so bad that I shall never want to walk down that street again!" Hastings's comforting reply was: "Don't let that worry you for a moment—half the streets of New York are absolutely closed to me for that same reason!"

Thursday, February 6.—Over two hundred members of the New York Chapter, A. I. A., attended the Chapter's annual dinner to-night on board the *Ile de France*. Walter Damrosch was the sole speaker of the evening, and drew an interesting parallel between the arts of music and of architecture. He hoped that we, too, might find some great means of advancing our art in a wider public appreciation, such as has come to music in the guise of the radio.

As to the boat itself and its modernistic decoration, it seemed to me somewhat like the curate's egg—parts of it were quite good. It does seem an unnatural use of materials to employ facings of marble inside of a vessel. There is always the fear that material of so great rigidity cannot, and should not be expected to, withstand the strains of a structure so flexible as a boat.

The medals usually awarded annually for the best apartment-houses were withheld this year, the committee finding no work quite worthy of such awards.

Friday, February 7.—St. Paul's Chapel at Broadway and Vesey Street, having reached its one hundred sixty-third year, is becoming somewhat decrepit in its brown-stone exterior. Workmen have knocked away some fifteen tons of half disintegrated stone, and have impregnated the remainder with hot paraffin. The scheme is to heat a small portion of the surface to about 200° F., when it absorbs the paraffin to a depth of a quarter of an inch. Water, the chief reason for disintegration, is thus excluded.

Sunday, February 9.—Dropped in at the National Arts Club to see the annual exhibition of etchings and found, much to my delight, that Gerald Geerlings's four entries had been given an Honorable Mention—the only award in addition to the John G. Agar Prize, which went to Andrew Vargish.

Monday, February 10.—Perhaps the following will explain the dearth of really good theatres. F. P. A. culls a note from *Variety*, which says, in connection with the New Orleans Auditorium that, "before it was started, architects made trips all over this country and some went to the other side, so that nothing would be omitted that could possibly detract from its appeal."

Tuesday, February 11.—Dropped into the Grand Central Galleries with Alfred Githens to see an exhibition of Violet Oakley's recent work. We have heard far too little of Miss Oakley since her Harrisburg State Capitol decorations, but the drawings now on view show that she has by no means been idle. The field of portraiture has attracted her—a portraiture associated with international figures who have been active in the League of Nations, the World Court, in Geneva and in other European capitals. Miss Oakley has been working in many media, but has apparently found most sympathetic for her portraits the sanguine crayon on cream paper. Some of her travel sketches are on darker charcoal papers with a still darker and a lighter crayon, achieving impressions of masterly technic and great charm.

Wednesday, February 12.—The newspapers are making much of the fact that the old Waldorf, last assessed as worth \$5,000,000, has been demolished at a cost of \$900,000 with a salvage value of only \$150,000. That is not the whole story. It is not even the interesting story. The more significant figures would be: original investment of land and building, with its financial return,

(Continued on page 246)

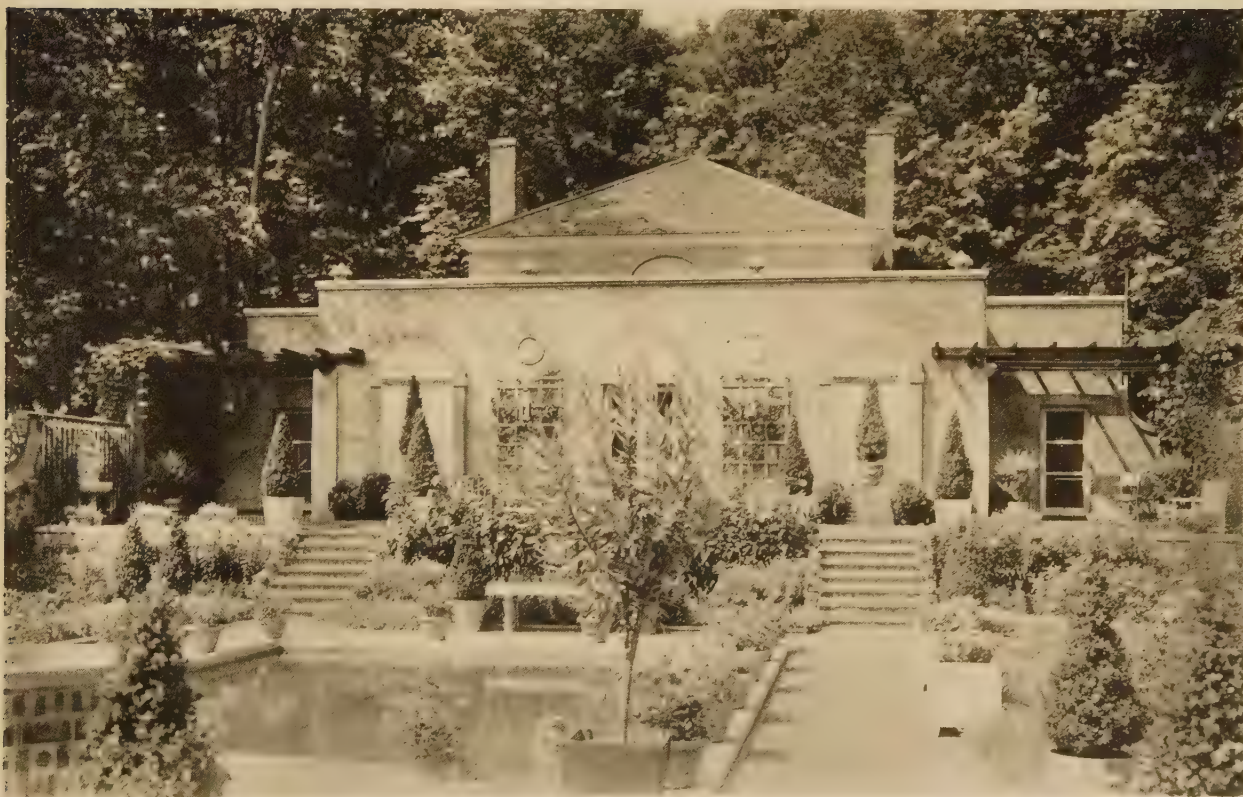
Lest We Forget:

The architectural press devotes much of its space to current work, a little to that which is very old. In between the two fields lies a forgotten wealth of achievement, to which we might glance now and then to verify our course of progress.



H. H. S.

The house and studio built for A. C. Bartlett at Lake Geneva, Wis., by Howard Shaw. The buildings are of cast concrete, built about twenty-five years ago



compared with what the land alone has just brought. A wholly new and separate question is the value of the present investment, land and buildings, with its estimated financial return.

Thursday, February 13.—The thirst for knowledge is surely one of the architectural profession's outstanding characteristics. Double the usual number came to-night to The Architectural League to see the film which attempts to explain the Einstein theory. As a matter of fact, it was rather elementary stuff, having been somewhat cut, but it did serve to start a few private groups into discussions which reached far afield.



Monday, February 17.—Leicester B. Holland came in from Washington today with one of the finest schemes that has been hatched out for many a long day. Holland, as Director of the Fine Arts Division, Library of Congress, is about to establish the Library as a repository for photographic records of early American architecture. Miss Frances B. Johnston has started the movement by giving to the Library of Congress her collection of some five thousand negatives. Various other individuals have volunteered to give smaller collections. Up to the present time Doctor Holland's scheme is to limit the collection to work executed previous to 1820. Later it is hoped to take in subsequent periods up to the present time. The great point is that the Library is to serve not only as a permanent repository for these photographic records, but also as a source from which copies may be had at any time. This presupposes a very elaborate system of indexing, which it will be the Library's function to supply. Meanwhile, it is hoped that various historic associations, collectors, and others having photographs of early work in their possession will donate these to the Library of Congress. Where a photographic print only is available, it is hoped that the Library will make its own negative copy so that further prints may be had.

It seems incredible that such an obviously satisfactory arrangement has not long since been put into operation, to furnish a permanent repository and source for architectural photographs. However, now that it is started, the thing to do is to put it into active working order at once.

Tuesday, February 18.—Robert A. Millikan says a great many wise things, but one of the wisest to my mind is the following: "Am I sufficiently familiar with what the past has learned, and what it therefore actually has to teach, and am I enough of a statesman not to

remove any brick from the structure of man's progress until I see how to replace it by a better one?" Doctor Millikan asks this question of the scientist. It might with equal propriety be asked of any one engaged in the creative arts.

Thursday, February 20.—Went to hear Raymond Hood lecture at New York University on "The Attack of the Problem." Hood takes issue with Royal Cortissoz when the latter, in a review of the recent Architectural League Show, said in effect: "These buildings are perfectly adapted to the needs of those who occupy them, they are well constructed, they meet every practical consideration of the respective problems, but are they art?" Hood's attitude is that if they are all these things we have nothing further to worry us. He described in detail the problem of The Daily News Building, now under erection in New York; how every facet of the problem was controlled by some practical consideration. No office space could be farther than 27 feet from outside light. Windows were established at 4 feet 4 inches width (if larger, women employees cannot handle them; if smaller, they do not take advantage of all the light). The net rentable area of the building had to be at least 65 to 70 per cent of the gross area. All these and many more such practical matters having been met, the architect's work was ended. No further attempt was made to make it beautiful nor to put ornament upon its essential skeleton.

Julius Delbos, the distinguished watercolorist, demonstrated at The Architectural League to-night his technic in producing water-colors. At the same time a second ring of the studio circus showed Carl Landefeld demonstrating his method of rubbing powdered lead into illustration board, guided by means of stencils, to produce effective architectural studies in a very few minutes.

Friday, February 21.—Ralph Adams Cram is, I believe, as great a writer as he is an architect. Listen to this, his description of the Acropolis at Athens, as lifted out of his "White Magic" in *The American Mercury*:

"Out of this welter of fading yellow rises always the great rock of the Acropolis. Roman ruins and Greek huddle around its base, and thoughtfully the authorities have preserved some space of trees, here and there for measurable isolation. Busses and automobiles roar around the rock, and gasoline and cinema signs fight for nearer approximations, but at the base of the scarp civilization ceases and culture—or the memory of a culture—begins. Orthodox Christians, Moslems, Franks, Venetians, predatory amateurs and archaeologists have sequentially contributed their share of destructive energy, and now restoration comes in to play its part, but still some

immortality fights down mortality, and the Acropolis, ruined, desecrated and defiled, still reveals and proclaims something in the life of man that had the whiteness of pure flame, a thing that could not die.

"And yet there is no whiteness here as of snow or lime or deep-sea pearls. Rather it is all blue-silver and old ivory and amber from Samarkand. But the word means so much more than pure pallor; it embraces all these warm hues, that, as with the spectrum, together make the white fire of pure white. From the sea the Parthenon shows white against the mauve of Lycabettus and the blue of the Pentelican hills. It is white under the sun and white under the moon, but it is the white of some higher purity that transfigures its material accidents."



Monday, February 24.—Rhodes Robertson, of the firm of Hewitt & Brown, Inc., Minneapolis, was prompted by Mark Barr's recent article to express himself upon some phases of aesthetics: "Granted evolution, man through millions of years has submitted to the laws of growth which he sees about him in plants, in shellfish, in snowflakes, and still more fundamentally now in the arrangement of molecules. This sense of order should cause us to take pleasure in symmetry, both radial and lateral. Our delight in music and in the sight of architectural form seems to belong very definitely to this sense of order. It also causes us to take pleasure in a plan that is regular and well disposed in the relation of its different parts."

Mr. Robertson agrees with Barr that the use of such means as the "golden section" should be instinctive rather than conscious, approximate rather than exact. "There is nothing to be gained in an exactness that the unaided eye cannot sense. Every architect knows what considerable variation can be made from a right angle in plan before it becomes obviously not a right angle, and how far one can deviate from precise symmetry before the eye recognizes the distortion. Any example of architecture that has stood the test of time for its beauty can be found full of more or less subtle and more or less approximate golden mean propositions as well as the more obvious symmetry. Its beauty, which is its appeal to our basic sense of order, lies in an approximation of symmetry or of the golden mean which is close enough to arouse an emotional reaction, but it does not need to have the hardness of mechanical accuracy. Let us, therefore, forget the fact that we know the golden mean ratio to the n th figure after the decimal point, and trust rather to our innate sense of that proportion which is our evolutionary heritage."



ARCHITECTURE'S PORTFOLIO OF GARDEN SHELTERS



PRENTICE
SANGER

WILLIAM PITKIN, JR., AND SEWARD H. MOTT

S. R.
DE BOER





ROLAND E. COATE



FREDERICK G. FROST

HERMAN BROOKMAN





HENRY N. BOUCHER



CHANTILLY, FRANCE



ELMER GREY





RUTH DEAN



BROADWAY, WORCESTERSHIRE

ANDREW N. PRENTICE



STILES O. CLEMENTS





EDGAR AND VERA COOK SALOMONSKY



LEIGH FRENCH, JR., ARCHITECT;
H. D. EBERLEIN, ASSOC.

VENICE, EIGHTEENTH CENTURY



MELLOR, MEIGS & HOWE





DELANO & ALDRICH

CHATEAU
DE DISSAIS, FRANCE

ELECTUS D. LITCHFIELD



DONALD D. McMURRAY



RICHARD SCHERMERHORN



AZEITAO, PORTUGAL,
EARLY FIFTEENTH CENTURY





MANNING
BROTHERS



WILLIAM F.
DOMINICK

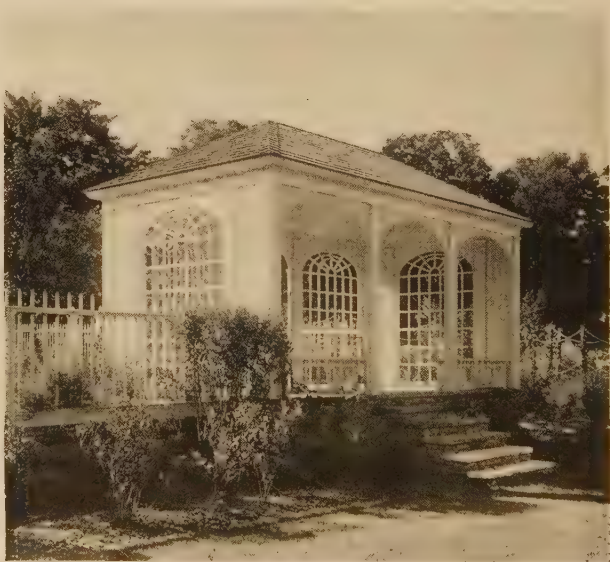


DELANO & ALDRICH

CHARLES A.
PLATT



CHAS. S. KEEFE;
HALLAM L.
MOVIUS



CONTACTS

DEVOTED TO A BETTER UNDERSTANDING OF THE BUSINESS SIDE
OF ARCHITECTURE AND ITS RELATION TO THE INDUSTRIES

Scientific Research on Bricklaying at Mellon Institute

AN interesting example of collaboration between scientist and artisan is found in the broad scientific study of bricklaying recently inaugurated by Mellon Institute of Industrial Research and the Eastern Face Brick Manufacturers' Association. The experiments are being carried out by Doctor F. O. Andregg, Senior Industrial Fellow of the Institute's Multiple Industrial Fellowship on Portland Cement, and his assistants. Architects, building contractors, and masons are aiding the work by contributing opinions and advice based upon experience.

In brief, the investigation will cover certain aspects of all the factors involved in bricklaying. The most obvious points of attack are studies of the characteristics of different kinds of brick and mortar. Problems of special appeal to the practical man are those concerned with different methods of backing and with differences in workmanship. The design of walls and their relative elasticity are subjects which

will be of considerable interest to contractors and architects.

Brick and mortar problems under investigation include the absorption and surface characteristics of brick, and differences in mortars due to varying the cementing materials, sand, and pigments. Properties of the mortars which are being studied carefully are workability, compressive and transverse strength, absorption and permeability, shrinkage, durability, staining and efflorescence, and elasticity. Information is being collected to determine whether the 10 per cent of lime often specified by architects or the 25 per cent or more usually employed by brick masons gives better all-around results.

The problems in backing include a study of hollow tile of different sizes, of brick, of cinder or concrete block, of brick tile, and of metal or other lath on steel frame. Variations in workmanship are most apparent in regard to tapping, pointing, and the filling of head-joints. The first

mentioned subject is being studied, not only in regard to the effect of excessive downward tapping into place, but also in regard to plumbing both before and after initial set.

Among the most important problems of design are the nature of the backing unit and the method of connecting the face and backing. Coping and parapet construction are likewise being investigated. Capillary contact with the ground and condensation allow moisture to penetrate into the wall and must be guarded against. Finally, a study of special interest in this day of high buildings is the elasticity of walls of different types.

Special mention should be made of weather problems. The experiments have been planned for the purpose of investigating the behavior of mortar with reference to the other variables in all types of climatic conditions.

All results of this investigation will be published for the benefit of every one interested in building construction.

Aluminum-Leaf Coating

IN these days when the silvered surface is so widely sought in design of modernistic trend, it is interesting to note the fact that aluminum coating effectively insulates wood against changes in atmospheric conditions. It is employed, for example, in the difficult task of protecting aircraft propellers against changes in form and balance. A coating of aluminum leaf is best, though various aluminum paints are nearly as good and are more easily applied, according to findings of the U. S. Forest Products Laboratory.

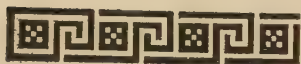
Aluminum-leaf coating is applied as follows: Coarse-textured hardwoods like oak should receive a wood filler of silex paste; fairly even-textured hardwoods like birch may re-

ceive a liquid wood filler; very even-textured hardwoods like maple and any of the soft woods may receive a varnish primer. One or two coats of spar varnish are applied next and allowed to dry thoroughly. This should provide a smooth, non-absorptive surface to receive the aluminum coating. A coat of spar varnish, thinned with one-fourth its volume of turpentine or mineral spirits, is then brushed on and allowed to dry almost to the condition known as "dust free." The workman will soon learn to judge the proper condition of this coating by touching it lightly with his finger. For the usual spar varnishes, the right condition is reached in about one and one-half to two hours after application. The

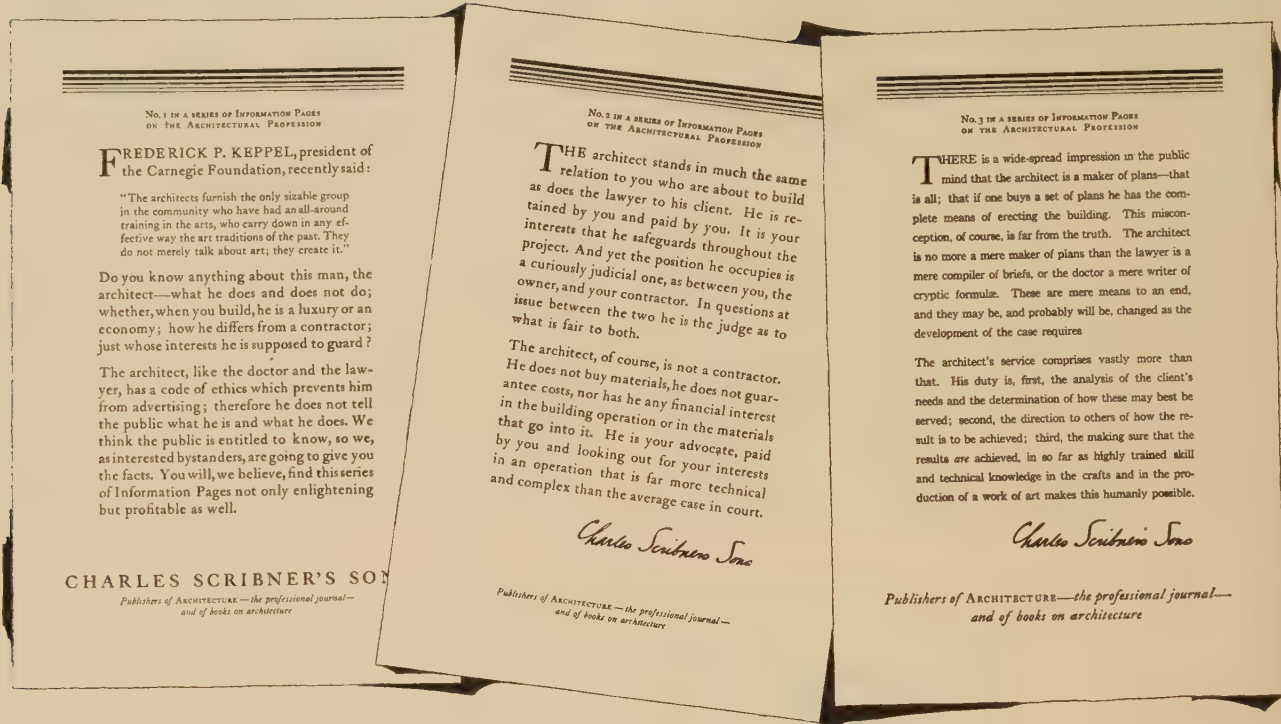
aluminum leaf is then laid on the surface directly from the book, without the aid of gilders' tips or the necessity of skilled workmanship. Overlapping edges of leaf are brushed off and small gaps in the coating are filled by patting them lightly with a wad of waste that has been dipped in aluminum bronze powder. The aluminum coating is further protected by one or two additional coats of spar varnish or, better, two coats of exterior enamel.

Aluminum bronze powder, with almost any drying oil or varnish liquid as the vehicle, serves admirably as the pigment for paint. Such paints are characterized by remarkably high opacity (one coat will hide

(Continued on page 258)



Telling the Architect's



THE architectural profession seems almost unanimously agreed that the story of the profession should be told to the public. The main difficulty lies in telling it. The architect's own modesty, his disinclination to talk about himself and his good works, his ethical inhibitions, all combine to make him leave the story untold.

It seemed to the publishers of ARCHITECTURE, however, that being in the position of an interested bystander, they could, with perfect propriety, tell the public something about the workings of the profession, facts which the profession itself could not gracefully state. The campaign of education, therefore, as represented partly by the successive "Information Pages" reproduced above, was begun in the summer of 1929. The first piece of copy appeared in the November issue of *Scribner's Magazine*, and the campaign has been running in that magazine up to the present time. A wider publicity is planned for it through the use of various other magazines. Feeling that it is impossible to tell the whole story in these Information Pages, a booklet has been written and is now printed, telling the story as concisely and as forcibly as seems within our power. Subsequent publicity copy, therefore, will tell of this booklet and offer it free of charge to any one requesting it. Copies are available in any quantity to

architects at \$3.00 per hundred. Individual members of the profession may find it possible to have the booklet reprinted in local newspapers, thus still further spreading a knowledge of what the architect is and what he does.

Some indication of the profession's attitude toward the campaign is to be had in the following comments:

"We are more than appreciative of what you are doing and are thoroughly in accord with your policy and also with the statements which have been published.

DETROIT CHAPTER, A. I. A."

"These advertisements are setting forth the architect's view-point in a most admirable way.

SECRETARY-TREASURER,

CENTRAL ILL. CHAPTER, A. I. A."

"I believe that the architects, individually and through their respective societies, should co-operate fully with you in this programme.

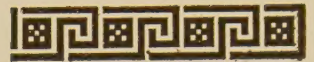
SECRETARY-TREASURER,

INDIANA CHAPTER, A. I. A."

"You are undertaking to do something for the architect which he is not in a position to do for himself.

SECRETARY, IOWA CHAPTER, A. I. A."

Story to the Public



No. 4 IN A SERIES OF INFORMATION PAGES
ON THE ARCHITECTURAL PROFESSION

THERE are those who hesitate to employ an architect because of an uncertainty as to whether the particular man selected will be able to satisfy them with a design. Apparently these people do not know that an architect may be retained and dismissed at any point of the proceedings. It is not necessary that one who cannot satisfy the client with his design be retained to the bitter end. If, after having the architect of your choice make preliminary sketches in accordance with his understanding of your needs, the results are not to your satisfaction, and repeated trials fail to make them so, you are at perfect liberty to terminate the connection, pay him for the work that has been done, and engage another man. One-fifth of the total fee is the accepted amount due upon completion of preliminary sketches.

Charles Scribner's Sons

*Publishers of ARCHITECTURE—the professional journal—
and of books on architecture*

No. 5 IN A SERIES OF INFORMATION PAGES
ON THE ARCHITECTURAL PROFESSION

THE relationship of a man and his architect is similar to that between a man and his physician. You retain the practitioner of your choice; tell him as much as possible of your aims, needs, mode of life (or business), and seek his diagnosis.

It will be well to realize the fact that you can tell him how large and what quality you want, allowing him to ascertain for you what it will cost; or else you can bind him as to quality and cost, allowing him to tell you how much building you can secure for that amount; or, again, you can bind him as to size and cost, in which case he will tell you what quality is obtainable. Manifestly it is not possible for you to specify all three of these governing factors—size, quality, and cost, since any two of them will necessarily determine the third.

Charles Scribner's Sons

*Publishers of ARCHITECTURE—the professional journal—
and of books on architecture*

No. 6 IN A SERIES OF INFORMATION PAGES
ON THE ARCHITECTURAL PROFESSION

THE question "Shall I employ an architect?" is easily answered if the prospective builder will ask himself, instead, "Do I want a stock house (or church, or store or what not) or do I want something designed for me personally—something that meets the special needs of my family (or congregation, or business) and affords a proper setting for it? In a word, do I want to fit myself into a stock pattern, or do I want that which is fitted to me, to my needs and my ideals?"

If the former alternative will satisfy you, do not bother with an architect. If you do want a building tailor-made to your particular needs and desires, the architect's function is the only known means of getting it.

The question of cost does not properly come into it, for any architect worth his salt will save you far more than his commission.

Charles Scribner's Sons

*Publishers of ARCHITECTURE—the professional journal—
and of books on architecture*

"The Board of Directors of the Michigan Society of Architects has instructed me to convey its appreciation to you of the publicity you are about to give the architects as a group in coming editions of *Scribner's*.

SECRETARY,
MICHIGAN SOCIETY OF ARCHITECTS."

"I think that your action in the matter should be of very distinct value to the profession and that the copy which you enclosed was in excellent taste.

SECRETARY,
NEW JERSEY CHAPTER, A. I. A."

"The secretary was instructed to write you and to convey the thanks of the chapter for the aid you are offering the profession.

SECRETARY,
CENTRAL NEW YORK CHAPTER, A. I. A."

"I am sure that your action will be of the greatest benefit to the public, and to the architects of the country.

NORTH CAROLINA CHAPTER, A. I. A."

"I was requested to write you a letter thanking you for the publication of your series of information pages on the architectural profession.

SECRETARY, OREGON CHAPTER, A. I. A."

"Personally I feel this is of great interest to

the profession and feel that you are conducting a movement which I can support most heartily.

SECRETARY, ST. LOUIS CHAPTER, A. I. A."

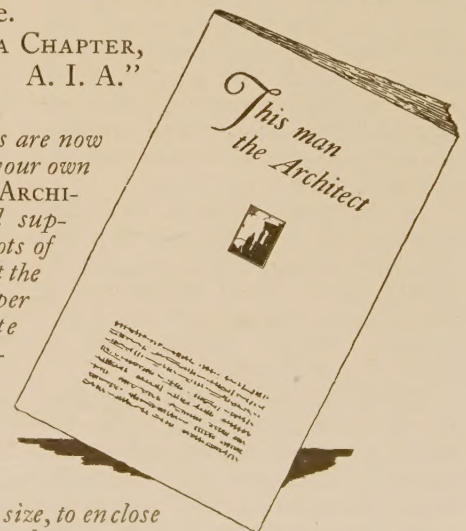
"It was the sense of the meeting that this kind of advertising would be more beneficial to the profession, coming through sponsorship of allied interests as typified by you, than the same kind of advertising if sponsored by the profession itself.

SECRETARY,
SOUTH TEXAS CHAPTER, A. I. A."

"The advertisements impressed us as being the most progressive thing that has taken place for some time.

VIRGINIA CHAPTER,
A. I. A."

These booklets are now available for your own distribution. ARCHITECTURE will supply them in lots of 100 or more at the rate of \$3.00 per 100—a rate barely covering the cost of printing and mailing. The booklets are 3 1/4 by 5 1/4 in size, to enclose in the usual envelopes.



the underlying surface completely), and by great effectiveness in preventing the passage of moisture. These properties are due to the fact that aluminum powder is made up of very thin flakes that are not thoroughly moistened by paint or varnish liquids. As a result, as soon as aluminum paint is applied, the aluminum flakes rise to the surface and form a nearly continuous coating of metal. Many liquids have been used for vehicles for aluminum paints. Of these gloss oil is the cheapest. It dries rapidly, but is not very durable if the coating comes in direct contact with excessive moisture. Shellac and nitro-cellulose wood lacquer are also fast drying and much more durable than gloss oil, though not satisfactory for use out of doors. Asphalt and pitch paints alone are very effective coatings for preventing moisture absorption, but they do not withstand constant exposure to sunlight. When they are mixed with aluminum powder an exceedingly effective and much more durable coating is obtained, though it is still inferior in durability to paints made with spar varnish or treated linseed oil. The flakes of the aluminum powder usu-

Contacts

(Continued from page 255)

ally obscure the black color of such liquids. Aluminum paint made with interior varnish, which is high in resin content, is used particularly for preventing "bleeding" of undercoatings and has even been recommended for painting over creosote-treated wood. Aluminum paints made with long-oil spar varnish (an "80-gallon" varnish is recommended) or kettle-bodied linseed oil are very durable, and are especially serviceable for exterior work. Where neither of these liquids can be obtained, ordinary boiled linseed oil may be substituted.

For the first coat of aluminum paint on previously unpainted wood, one and one-half to one and three-fourths pounds of aluminum bronze powder, "varnish grade," should be added to one gallon of liquid. Subsequent coats should contain two pounds of powder per gallon of liquid.

Aluminum paint is mixed by merely stirring the powder thor-

oughly into the liquid with a paddle. It is best to mix the paint just before use because after standing the aluminum flakes do not readily rise to the surface.

Two coats or more of aluminum paint should be applied when effective protection against changes in moisture content of the coated wood is the principal objective.

The color of aluminum paint may be altered by incorporating small amounts of suitable tinting pigments, but the metallic luster of the aluminum is usually retained. The addition of material quantities of granular pigments interferes with the formation of the coating of aluminum flakes, and thereby decreases its effectiveness as a barrier against the movement of moisture. The best way to use aluminum paints for making material proof against moisture, and yet obtain the color and sheen of ordinary paints and enamels is to apply two coats of plain aluminum paint followed by one or two coats of a paint or enamel that will produce the desired appearance. Aluminum paints prepared in the way described afford a satisfactory foundation for the application of customary finishes.

Courageous Spending

EXCERPTS FROM AN ADDRESS BY CHARLES F. ABBOTT

Executive Director, American Institute of Steel Construction

THERE are many sales executives who have come to the conclusion that we are passing from the age of *salesmanship* to that of *consumership*. We are shifting the emphasis from the old personal arts of salesmanship to the *statesmanship of consumption*. We are interested more in creative spending than we are in clever selling. The problem of *sales management* is of greater importance than it ever was.

In the past, business has been operated on what we may call the economy principle, the principle of paring down and of saving; and it has a wonderful and worthy background. America would never be what it is without it.

But as this policy has had to pass; as we now understand that the hold-tight, spend-as-little-as-you-can principle must give way to a new, more constructive, and aggressive outlook—so business is now begin-

ning to emphasize the principle of *creative spending* rather than that of pinching economy. We feel it in our family, in our business, and in our national attitude.

Cyrus Curtis, head of the Curtis publishing interests, once said he had an executive in his employ whom he had to discharge *because he could never teach the man to spend enough money!* The man had been trained in the old school where all the credit went to the man who *saved* the most.

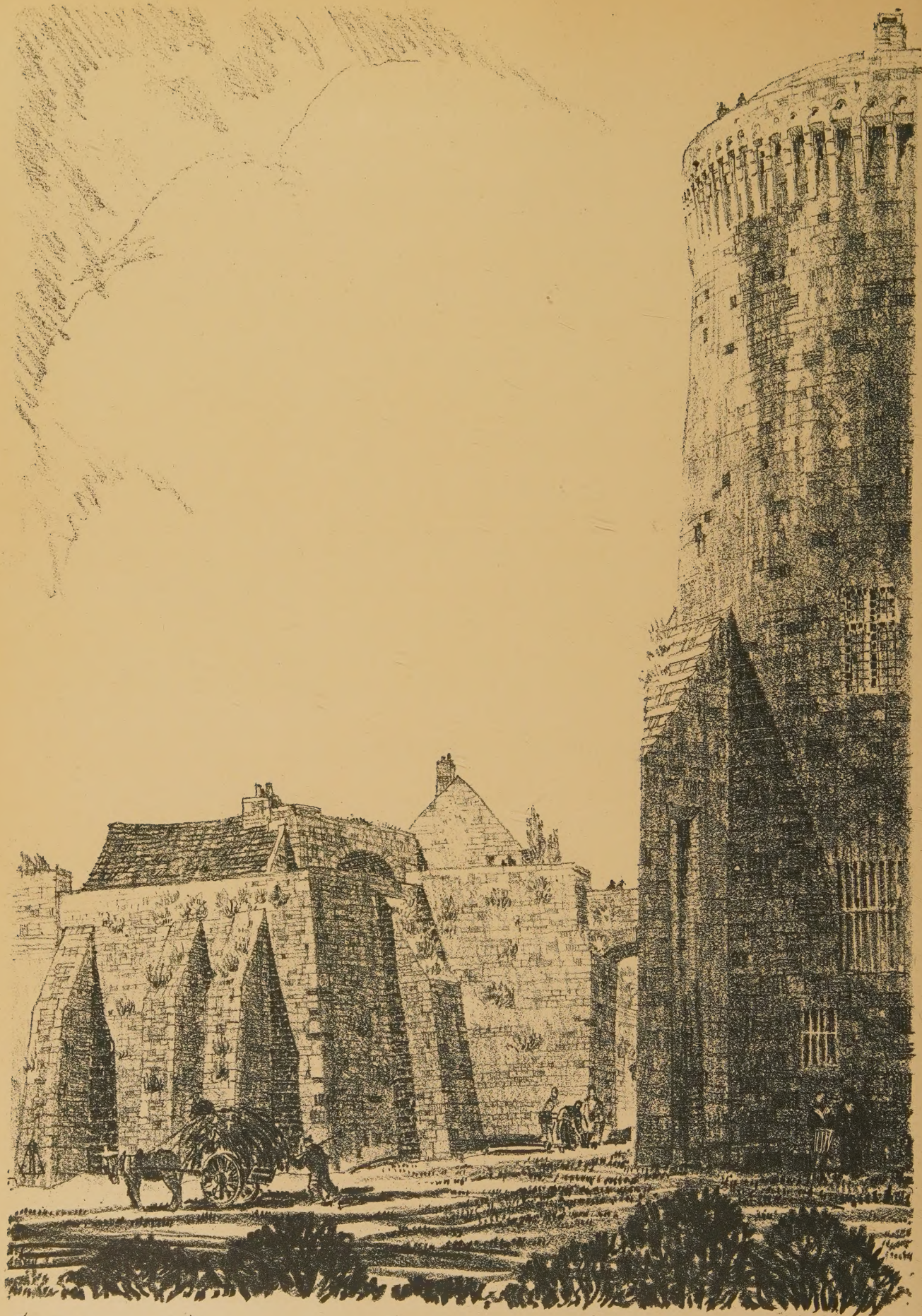
We need bold, determined, aggressive spenders; daring but cool; risk-taking, confident, even colossal spenders. Does this sound startling? Don't be afraid. Carnegie was called a colossal spender because of his fast scrapping policy, but Carnegie literally set the modern American industrial pace.

Why not go at the job *creatively*? Not all the builders are taking the fullest advantage of the rapid ad-

vances in new materials and metals. Astounding new things are being developed, but much of the new that we already have has not been widely used. Our equipment should be made with the very latest materials for greater efficiency.

If an industry actually knew of the opportunities for a greater use of their product, of the waste that occurs in failing to develop new uses and new markets and the loss in profits that could readily be realized, it would immediately insist upon organized co-operative research and supply the funds to finance the operation. Courageous spending, it is true, but why should so much courage be needed when the results are so obviously profitable?

I have an idea that ten years from now, perhaps less, we will look back even on to-day as mere pioneering in the bigger things to come in creative spending.



ARCHITECTURE
CHARLES SCRIBNER'S SONS

CHÂTEAU DE LA DUCHESSE ANNE, DINAN
A lithograph by Gerald K. Geerlings